OCT 20 1898

IRVING K. POND, DES.

LORADO TAFT, SCULPT.

THE INLAND ARCHITECT AND NEWS RECORD

Entered at the Post Office at Chicago as second-class matter.

CONTENTS.

EDITORIAL: PAGE

Death of Thomas Fuller, Architect—Unwise Action by Labor Union. 21

FROST—ITS AGENCY IN THE BUILDING ART:

By Frederick Baumann, Architect, F. A. I. A. 22

CHANGES IN SCHOOL ARCHITECTURE 24

JEFFERSON AS AN ARCHITECT 24

OLD-TIME ARCHITECTURE AT ANNAPOLIS 25

SELECTIONS FROM FRENCH PUBLICATIONS 26

CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS .. 27

ASSOCIATION NOTES 27

CORRESPONDENCE 28

NEW PUBLICATIONS 29

PERSONAL 29

MOSAICS 29

OUR ILLUSTRATIONS 29

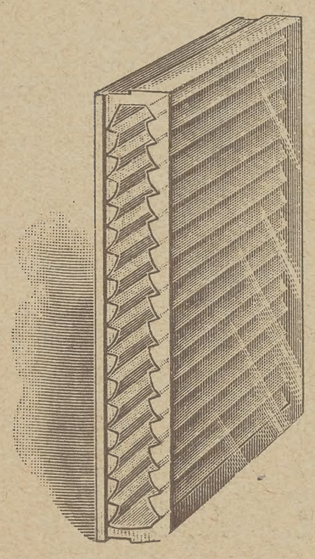
BUILDING OUTLOOK 29

SYNOPSIS OF BUILDING NEWS 30

INDEX TO ADVERTISERS XI

.....THE.....

ENCLOSED PRISM CO.



1439-1440 Marquette Bldg., Chicago.

Tel. Main 449. RALPH D. SMALL, Gen. Mgr.

Factory, 502-503, 84 Market St.

Our Advantages over all Other Prisms:

1. Both sides smooth.
2. Prismatic ridges being enclosed are protected from dust.
3. Glazing flush with glass.
4. Single glazing bar runs full length and width of frame, unsoldered except at extreme ends.
5. Air cushion between exterior surfaces operates to keep room warm in winter and cool in summer.
6. As easily cleaned as ordinary windows.

THE UNIFORM STANDARD CONTRACT

SAVES TIME IN WRITING CONTRACTS.
SAVES TIME IN READING CONTRACTS.
SAVES TIME LOST IN LITIGATION.
SAVES MONEY FOR OWNER, ARCHITECT AND CONTRACTOR.

REVISED AND IMPROVED.

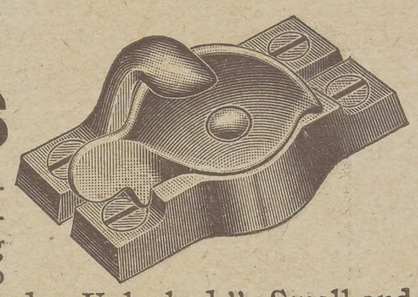
Adopted and Recommended for General Use by the American Institute of Architects and the National Association of Builders.

$1.10 per 100, $4.50 per 500, $8.00 per 1,000, free by mail or express.

INLAND PUBLISHING CO.,
610 Manhattan Building, Chicago.

THE USE OF

Fitch Sash Locks



Proves their Superiority as a Security Device; at once Simple and Durable; Adjusting the Sash; Preventing Rattling; Also Disfigurement of Top Sash by Keeping the Window "Locked or Unlocked." Small and large sizes in all finishes. Catalogue and working model on application.

THE W. & E. T. FITCH CO.,
NEW HAVEN, CONN.

NORTH-WESTERN TERRA-COTTA CO.

WORKS AND OFFICE:
Clybourn and Wrightwood Avenues.
Branch Office: 1118 Rookery Building,
CHICAGO.

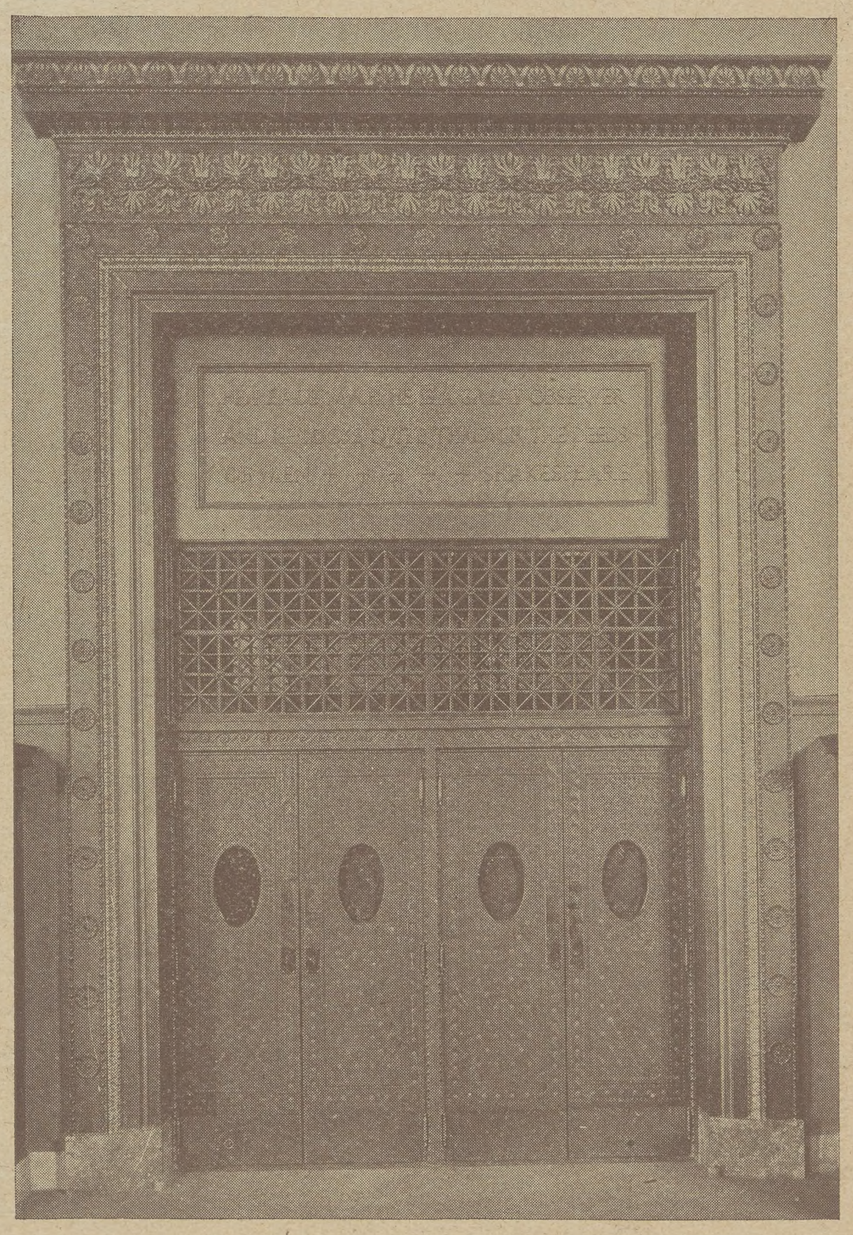
J. W. TAYLOR,

1303 Owings Building, Chicago,

ARCHITECTURAL PHOTOGRAPHS,

BUILDINGS, INTERIORS, DETAILS, Etc.

Promise to purchase two dozen from the lot at $4.00 per dozen, unmounted, and I will send 200 from which to make the selection.



Doors of Reference Room, Chicago Public Library.
EXECUTED BY
The Winslow Bros. Company, Chicago.
Ornamental Iron, Bronze and Brass Work.
Artistic Execution of Leading Architects' Best Work. Exclusive Original Designs.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

Residence of
CYRUS H. McCORMICK, Esq.,
Lake Forest, Illinois.

JARVIS HUNT, Architect, Chicago.

STAINED WITH

Cabot's Creosote Shingle Stains

The Original and Standard
Shingle Stains, and
Only Creosote* Stains.

Among those who wish to obtain clear, fresh and durable coloring effects, and to avoid gaudiness or muddy colors, our Stains still hold the same pre-eminence that they did when they were the only Shingle Stains — before thin paints were labeled Stains.

SAMPLES FREE OF ANY COLORS WE HAVE, OR CAN MAKE.

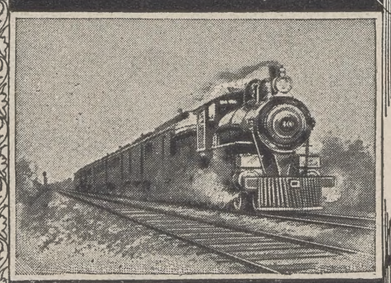
SAMUEL CABOT, Sole Manufacturer,

Boston, Mass.

1302 Owings Building, Chicago, Ill.

*Patented April 29, 1884; no other Stains can contain Creosote.

THE COLORADO SPECIAL
ONE NIGHT TO DENVER.



THE NORTH-WESTERN LIMITED
ELECTRIC LIGHTED.
ST. PAUL. MINNEAPOLIS. DULUTH.

The Overland Limited
CALIFORNIA IN 3 DAYS.

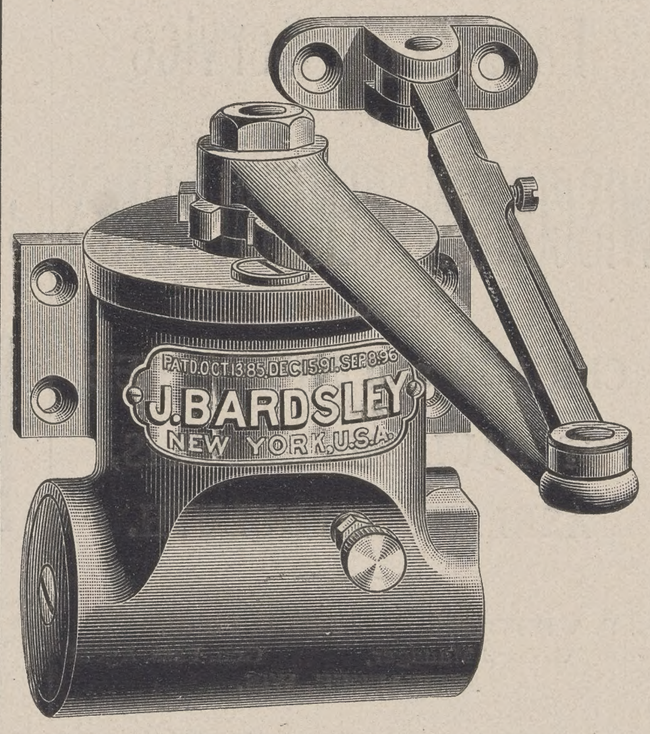
20th Century Trains of the CHICAGO AND NORTH-WESTERN RY.

THE PIONEER LINE
WEST AND NORTHWEST
OF CHICAGO.

H.R. McCULLOUGH,
3d V.P. & G.T.M.

W.B. KNISKERN,
G.P. & T.A.

THE "BARDSLEY"
OIL DOOR CHECK and SPRING



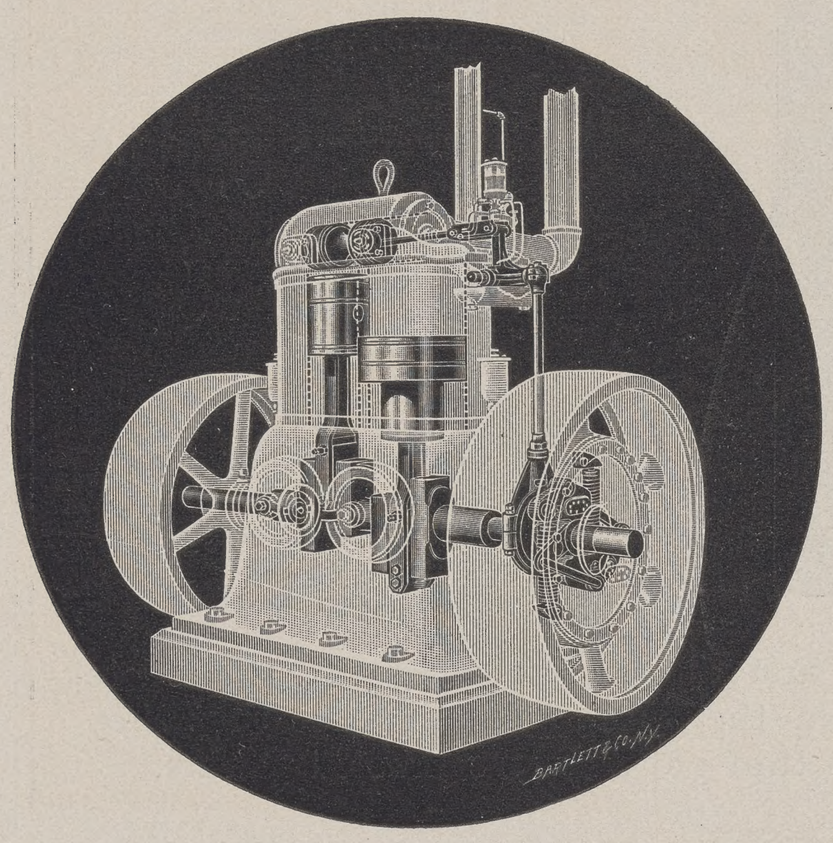
The latest and best. Has new and improved features.

JOS. BARDSLEY, 147 to 151 Baxter St.
New York City.

Write for Catalogue.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

THE WESTINGHOUSE MACHINE COMPANY, *Manufacturers.*
WESTINGHOUSE, CHURCH, KERR & COMPANY, *Engineers.*



Ten Years Ago The Westinghouse Compound Engine made the world's record for economic duty of non-condensing engines.

That Record was Attested by an engineer of unquestioned ability and standing.

It has been Verified by able experts many times since.

It Stands to this Day Untouched.

SHOPS AT PITTSBURG, PA., and CHICAGO, ILL.

OFFICES

NEW YORK, 26 Cortlandt Street. BOSTON, 53 State Street. CHICAGO, 171 La Salle Street.
PITTSBURG, Westinghouse Building. DETROIT, Union Trust Building.

PHILADELPHIA, M. R. Muckle, Jr., & Co., Drexel Building.

ARCHITECTS, BUILDERS *AND THE* PUBLIC

APPRECIATE THE

Fast Train Service

VIA

WISCONSIN CENTRAL LINES

BETWEEN

CHICAGO and MILWAUKEE
AND
ST. PAUL, MINNEAPOLIS,
ASHLAND and DULUTH.

H. F. WHITCOMB, General Manager, JAS. C. POND, Gen. Pass. Agent,
MILWAUKEE, WIS.

E. ELDON DEANE,

ARCHITECTURAL COLORIST,
AND ILLUSTRATOR,
63 SEYMOUR BUILDING,
Fifth Ave., corner 42d Street,
NEW YORK.

ILLINOIS CENTRAL

Runs Two Solid Vestibuled Trains Daily

DIAMOND SPECIAL NIGHT TRAIN
DAYLIGHT SPECIAL DAY TRAIN

between Chicago and St. Louis.

Free Reclining Chair Cars, Parlor-Café Cars, Pullman Buffet Open and Compartment Sleeping Cars. See that your ticket between Chicago and St. Louis **Reads via Illinois Central Railroad.**
It can be obtained of your local ticket agent.
A. H. HANSON, G. P. A., Ill. Cent. R. R., Chicago, Ill.

Copyright, 1897, by James Charlton.

GOOD MORNING!

Have you ever traveled via the

Chicago & Alton R.R.

between Chicago and Kansas City, Chicago and St. Louis, Chicago and Peoria, and St. Louis and Kansas City. It is "America's most popular railroad" and offers **perfect passenger service** between Chicago and Denver, Colorado, Chicago and Hot Springs, Arkansas, and Chicago and California.
James Charlton, General Passenger and Ticket Agent
Chicago, Illinois.

"WHATEVER IS WORTH DOING AT ALL IS WORTH DOING WELL"

THE HENRY O. SHEPARD COMPANY

212-214 Monroe St. CHICAGO
Telephone 555

Printers, Embossers
Blank Book Makers

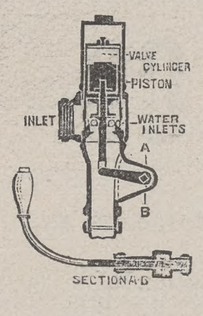
We do all kinds of Printing and Binding
Rush Work a Specialty

... Observe Typography of THIS JOURNAL as a fair specimen of our grade of work

Please mention **THE INLAND ARCHITECT** when corresponding with Advertisers.

The Kenney Flushometer

A NEW DEVICE FOR FLUSHING WATER CLOSETS, EITHER FROM TANK SERVICE OR STREET PRESSURE.



Takes the place of noisy and dirty overhead flush tank, with troublesome chain, ball-cock, etc.

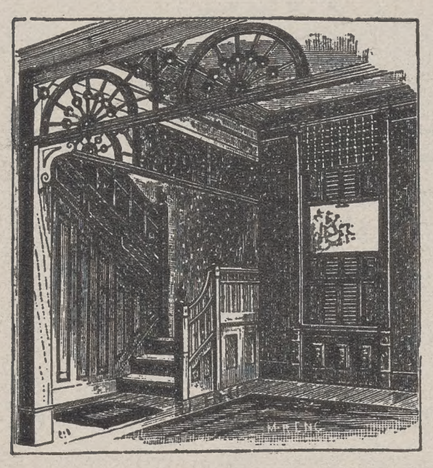
SIMPLE — SURE — SANITARY

Endorsed and specified by prominent Architects and Engineers.

THE KENNEY CO.,

72-74 TRINITY PLACE, NEW YORK.

Catalogue ?



POPPERT'S PATENT

Weight Sliding Blinds

ARE PERFECTION ITSELF.

ARE balanced by weights same as ordinary sash and can be applied to any window in old as well as new houses.

GEO. POPPERT MFG. CO.,

417-427 Poplar Street, MILWAUKEE, WIS.

We draw the attention of architects and the public to our **ALL ROLLING SLAT BLINDS**, especially arranged for a Southern climate, allowing perfect ventilation and shade at same time.

WANTED — An experienced draughtsman and designer accustomed to first-class work. One able to render perspectives in color preferred.

MASON & RICE, 80 Griswold St., Detroit, Mich.

THE J. W. REEDY ELEVATOR CO.

Passenger and Freight

ELEVATORS.

83 to 91 Illinois Street, CHICAGO.

31-33 Tenth Avenue, NEW YORK CITY.

FOR INFORMATION ABOUT

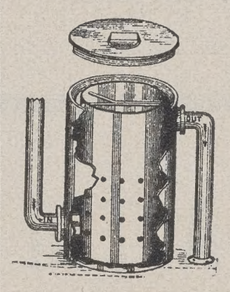
U. S. MAIL CHUTES

WHICH ARE

A necessity in office buildings and hotels, write to the sole makers,

THE CUTLER M'F'G CO., Rochester, N. Y.

PATENTED. AUTHORIZED.



A Trap that prevents the stoppage of the waste pipe. Whose?

The Sieben Combination Grease and Water Trap,

And the best Basin, Urinal, Laundry and Bath Trap on the market—and the cheapest. Cannot be siphoned, and saves the vent pipe. Patented October 11, 1897. They are made in lead, brass and iron enameled. Sold by Supply Houses. Send for circulars and price list.

THE SIEBEN TRAP & SPECIALTY CO., Kansas City, Mo.

Grand Trunk Railway System

THE FAVORITE ROUTE TO ALL CANADIAN AND EASTERN POINTS VIA THE "ST. CLAIR TUNNEL."

Through Solid Vestibuled Train Service, First and Second Class Coaches and Pullman Palace Sleeping Cars in connection with the

LEHIGH VALLEY RAILROAD SYSTEM

DAILY BETWEEN

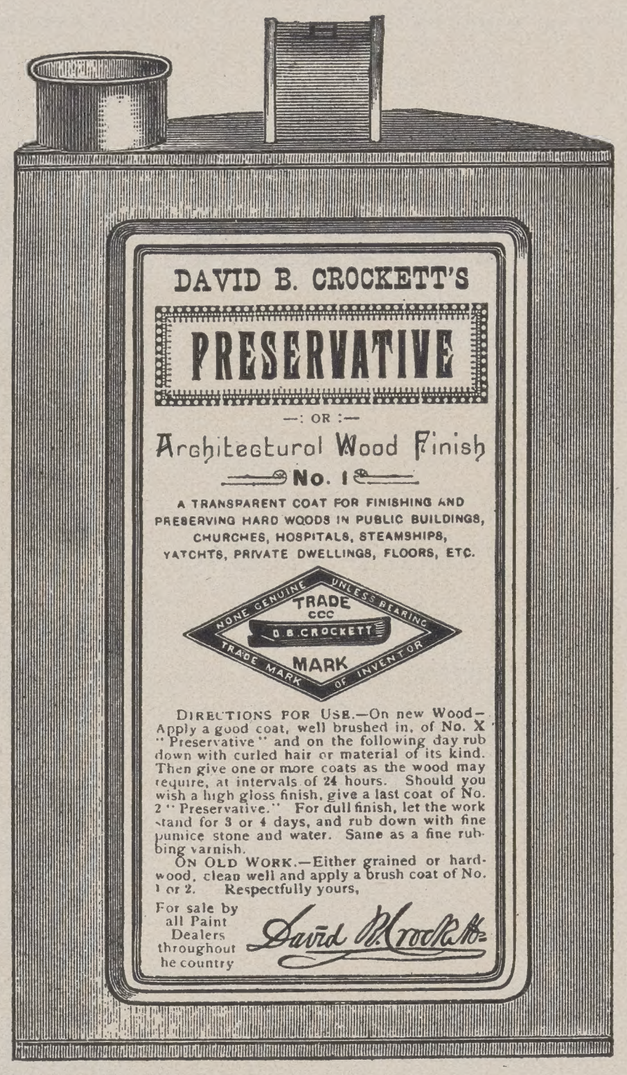
CHICAGO AND NEW YORK AND PHILADELPHIA

VIA NIAGARA FALLS AND BUFFALO.

Through Pullman Sleeping Car Service daily between Chicago, Detroit, Mt. Clemens, Saginaw Valley, Niagara Falls, Buffalo, Boston, Canadian and New England Points via Montreal.

For Rates, Sleeping Car Reservations, Folders, etc., apply to Ticket Agents of the Company.

CHAS. M. HAYS, General Manager, Montreal.
GEO. B. REEVE, General Traffic Manager, Montreal.
W. E. DAVIS, Gen. Passenger and Ticket Agent, Montreal.
E. H. HUGHES, Asst. Gen. Pass. and Ticket Agent, Chicago.


DAVID B. CROCKETT'S
PRESERVATIVE
—: OR :—
Architectural Wood Finish
No. 1
A TRANSPARENT COAT FOR FINISHING AND PRESERVING HARD WOODS IN PUBLIC BUILDINGS, CHURCHES, HOSPITALS, STEAMSHIPS, YATCHTS, PRIVATE DWELLINGS, FLOORS, ETC.
NONE GENUINE UNLESS BEARING
TRADE
CCC
D.B. CROCKETT
MARK
TRADE MARK OF INVENTOR
DIRECTIONS FOR USE.—On new Wood—Apply a good coat, well brushed in, of No. X "Preservative" and on the following day rub down with curled hair or material of its kind. Then give one or more coats as the wood may require, at intervals of 24 hours. Should you wish a high gloss finish, give a last coat of No. 2 "Preservative." For dull finish, let the work stand for 3 or 4 days, and rub down with fine pumice stone and water. Same as a fine rubbing varnish.
ON OLD WORK.—Either grained or hardwood, clean well and apply a brush coat of No. 1 or 2. Respectfully yours,
For sale by all Paint Dealers throughout he country
David B. Crockett

The Best Material in the Market

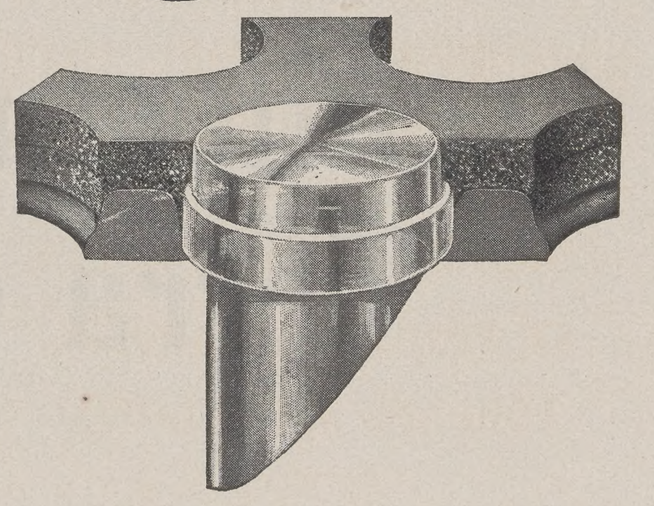
For Floors of Asylums, Hospitals, Hotels, Dining and Bath Rooms and all Inside Work.

Aquila Rich Paint and Color Co.

SOLE WESTERN AGENTS,

257 Dearborn St., CHICAGO.

Sidewalk Lights



CONCRETE REFRACTING LENS.

SEND FOR CATALOGUE

Brown Bros. Mfg. Co.

Established in 1860

N. W. Corner Jackson Boul. and Clinton St.

Chicago

Telephone, Main 4085

GEO. M. MOULTON, President. F. R. PETTIBONE, Vice-President. CHAS. F. EIKER, Treas. and Gen. Manager. WM. A. MOULTON, Secretary.

PIONEERS IN THE INTRODUCTION OF FIREPROOFING.

PIONEER FIREPROOF CONSTRUCTION CO.

HOLLOW BUILDING TILE, SOLID AND POROUS TILE,

for Fireproof Floors, Walls, Partitions, Roofs, Columns, Ventilating Shafts, Etc.

Contracts taken for the complete fireproofing of buildings.

Special designs made on application.

Building Tile delivered and built in place in all parts of the United States.

View of Exhibit at World's Fair. Medal and Diploma Awarded.

Manufacturers, Contractors and Dealers in Every Description of

FIREPROOF TILE FOR BUILDING PURPOSES

OFFICE:
1515 Marquette Building.

YARD:
Cor. 16th and Clark Sts.,
CHICAGO.

Telephone, No. 4656 Main.
Builders' Exchange Box 405.
Factory on Hydraulic Basin, Ottawa, Ill.

THE WINKLE TERRA COTTA CO.

MANUFACTURERS OF

Architectural Terra Cotta

IN ALL COLORS.

OFFICE:

Rooms 502 and 503, Century Building,
ST. LOUIS, MO.

Works: CHELTENHAM, ST. LOUIS.

A Tin Specification

To be drawn correctly should call for a **Guaranteed** brand of Roofing, and one that is **known** to the architect. It should also stipulate that each sheet must be stamped with the brand, the thickness, IC or IX, and the maker's name.

The Taylor "OLD STYLE" Brand

Is made exactly the same as Roofing Tin was first made in Philadelphia in 1830. No other Roofing Tin is made like it or of the same materials.

EACH SHEET IS STAMPED AND GUARANTEED.

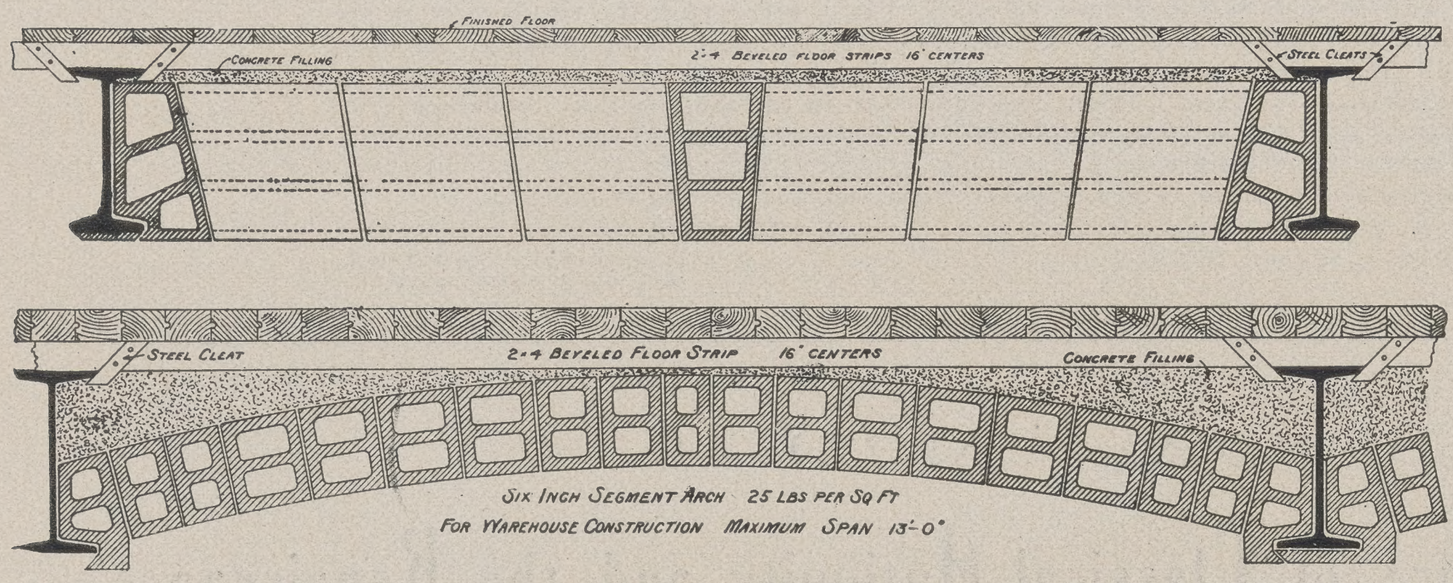
N. & G. TAYLOR CO.

SOLE MANUFACTURERS,

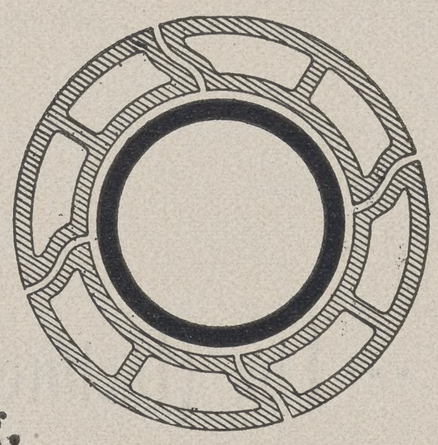
Established 1810. PHILADELPHIA.

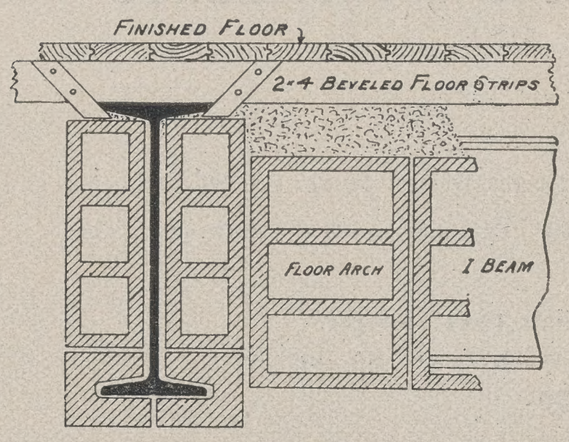
Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

The Illinois Terra-Cotta Lumber Co.


Finished Floor
Concrete Filling
2"-4" Beveled floor strips 16" centers
Steel Cleats
Steel Cleat
2-4 Beveled Floor Strip 16" centers
Concrete Filling
Six Inch Segment Arch 25 lbs per Sq Ft
For Warehouse Construction Maximum Span 13'-0"

C. W. BREGA, President.
A. W. BEIDLER, Vice-President.
E. A. HOEPPNER, Secretary.

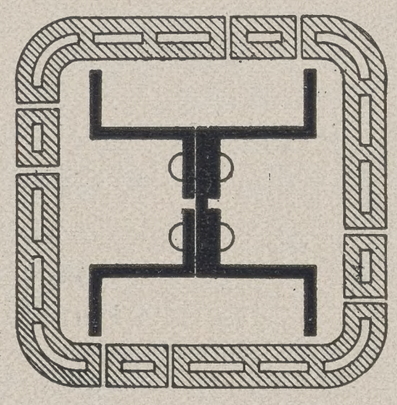




Porous Terra-Cotta Fireproofing.

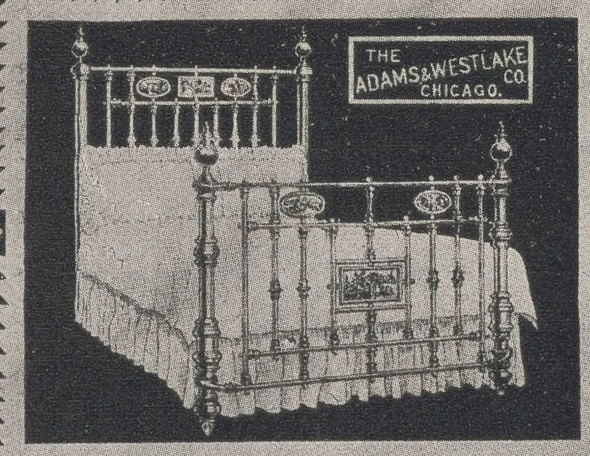
A COMPLETE SYSTEM FOR ENTIRE BUILDINGS.

Hollow Flat-Arch Tiles, for Iron Construction. Ceiling Tile. Partition Tile. Wall Furring. Column, Girder and Beam Coverings, Etc.



WORKS AT PULLMAN, ILL.

OFFICE, 461 "The Rookery" Building, CHICAGO.



"Sleep well in a Brass Bed."

ADAMS & WESTLAKE

American Brass Bedsteads

are made of seamless, all-brass tubing, and not of iron-lined tubing. The Standard of Quality, Cleanly, Luxurious, Beautiful. All prices. Look for our name-plate. Enameled Iron Bedsteads also. Catalogue free.

THE ADAMS & WESTLAKE CO.
120 Ontario Street, CHICAGO.

MACKOLITE FIREPROOFING CO.

MANUFACTURERS AND CONTRACTORS FOR

Light Fireproofing Material

A complete and perfect system for the fireproofing of buildings having wooden floor joists, or having iron construction.

ESTIMATES GIVEN FOR IRON AND FIREPROOFING COMPLETE.

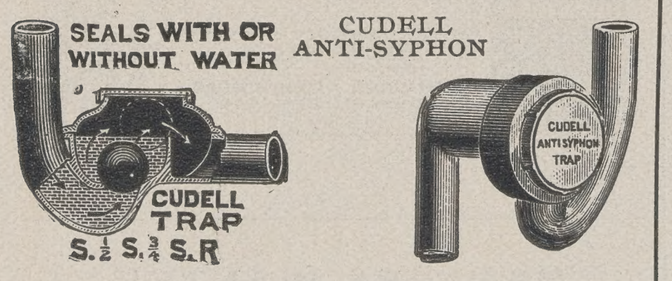
Floor Tile,
Partition Tile,
Furring Tile,
Floor Deafening,
Plaster Boards,
Column and Girder Covering.

Office, 1300 Schiller Building
CHICAGO, ILL.

Put into the White House by the U. S. Government.

SEALS WITH OR WITHOUT WATER

CUDELL ANTI-SYPHON



F. E. CUDELL'S

Patent Sewer-Gas and Backwater Trap

For Wash-Bowls, Sinks, Bath and Wash Tubs,

CLEVELAND, OHIO.

Established ..1869..

TRADE MARK REG. LAID BY SIMPSON BROS. CO. CHAMBER OF COMMERCE CHICAGO

CONCRETE CONSTRUCTION.

Rock Asphalt Floors and Pavements.
Concrete Curb and Gutter.

Walks, Driveways and Floors.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

DYCKERHOFF PORTLAND CEMENT

Is superior to any other Portland Cement made. It is very finely ground, always uniform and reliable, and of such extraordinary strength, that it will permit the addition of 25 per cent more sand, etc., than other well-known Portland Cements, and produce the most durable work. It is unalterable in volume and not liable to crack.

"The Dyckerhoff Portland Cement has been used in the Metropolitan Sewerage Construction, Boston, and is now being employed in the construction of the Boston Subway, Howard A. Carson, Chief Engineer."

Pamphlet with directions for its employment, testimonials and tests, sent on application.

MEACHAM & WRIGHT, Agents,
98 Market Street, CHICAGO, ILL.

E. THIELE,
78 William Street, NEW YORK,
Sole Agent United States.

NOW COMPLETE

...The Architecture of Classical Antiquity and the Renaissance...

By S. BUEHLMANN.

Seventy-five steel engravings and photo-lithographic plates in portfolio, with descriptive text translated by G. A. Greene, $18. The work is divided into three parts, which can be had separately.

Part I. The Orders of Columns (Vignola). Twenty-eight plates, with text, $6.50.
Part II. Facades, Arches, Doors and Windows. Twenty-five plates, with text, $6.00.
Part III. Development and Decoration of Rooms. $7.50.

Purchasers of two of the three parts can obtain the remaining part at a reduced figure, so that the total amount for the three parts will not exceed $18.

☞ WE RECOMMEND PART I AS THE BEST VIGNOLA IN THE MARKET. ☜

INLAND PUBLISHING CO., CHICAGO.

THE FLANAGAN & BIEDENWEG CO.
ART GLASS
Mf'r's OF ALL KINDS OF ORNAMENTAL GLASS
OFFICE & FACTORY 57-63 ILLINOIS ST CHICAGO

"Daylight Reflectors"
LIGHT DARK ROOMS.
The Only Cost is the First Cost.

These private galleries are lighted with Special Devices by I. P. FRINK, 551 Pearl St., New York:

Mr. Geo. W. Vanderbilt, Mr. Chas. T. Yerkes, Mr. M. D. C. Borden, Mrs. R. L. Stewart, Com. Elbridge T. Gerry, New York; Mr. L. Z. Leiter, Washington, D.C.; Mr. Potter Palmer, Mr. J. W. Ellsworth, Chicago; Mr. Jas. A. Webb, Madison, N. J.; Mr. Joseph Jefferson, Buzzard's Bay, Mass., and Mr. Chas. Sedelmeyer, Paris, France.

I. P. FRINK, 551 Pearl St., New York.

N. Y. S.
NORTH & SOUTH
VIA THE
MONON ROUTE
Chicago Indianapolis & Louisville Railway

Between
Chicago
Indianapolis
Cincinnati
Louisville

Parlor and Dining Cars by day

Palace Sleeping Cars by night

FRANK J. REED
General Passenger Agent
W. H. McDOEL, V.P. and Gen'l Manager · CHAS. H. ROCKWELL, Traffic Manager
CHICAGO

CAMERAS
KODAKS
AND
Chemicals

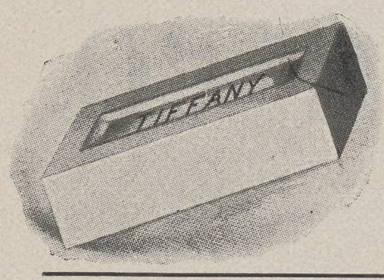
Martin G. Good
Photographic Supplies
AMATEUR HEADQUARTERS
Developing and Printing
Mail orders solicited
STEWART BUILDING
N.W. Cor. State and Washington Sts.
92 State St. CHICAGO

MANAGER WANTED.

A young and energetic man, with knowledge of engineering, to become pecuniarily interested in Red Slate quarry and take entire charge of operation. A good salary and rare opportunity to the right man.

Address A. B., Inland Architect, Chicago.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

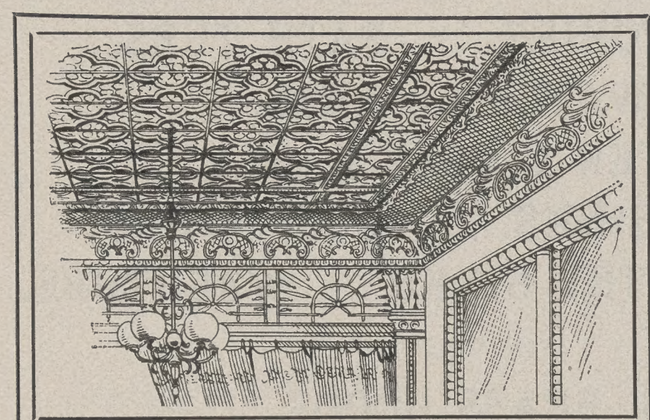


TIFFANY ENAMELED BRICK COMPANY

ALL COLORS—ENAMELED BRICK AND TILE—BRIGHT AND DULL FINISH.

LONG DISTANCE TELEPHONE, EXPRESS 579.

204 Dearborn St., Marquette Bldg., CHICAGO.



BERGER'S METAL CEILINGS

THEY GO UP EASY.
THEY STAY UP. THEY LAST

Greatest variety of patterns.
Deepest stamped. Most artistic.
Only ones in classified designs.

Address, for details,

THE BERGER MFG. CO.
CANTON, OHIO.

THE CHEAPEST GOODS
Do not always cost the least.

Established 1844.

Peerless Mortar Colors

Are the Brightest, Strongest and Most Durable.

THEIR ULTIMATE COST IS THEREFORE THE LOWEST.

SAMUEL H. FRENCH & CO.
PHILADELPHIA.

Send for Samples.

Telephone, Main 3213. *H. E. Torgersen, Mgr.*

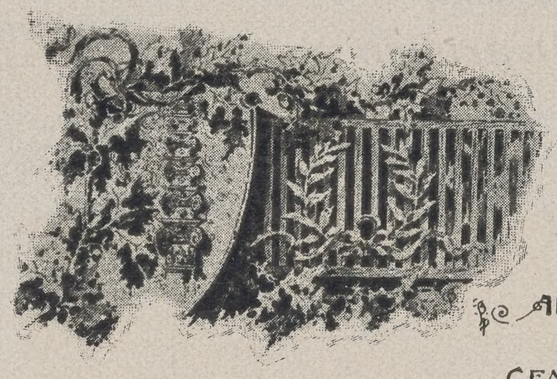
HENRY E. TORGERSEN & CO.

... Architectural and Engineering ...

Photographers,

For specimens of work, see plates in this publication marked T.

153-155 La Salle St., CHICAGO.



W.M. WOLFARTH. OSCAR SPINDLER. W.T. FOSTER.

The Decorators Supply Co.

209-219 S. CLINTON ST. CHICAGO. ILL. TEL. MAIN 2230.

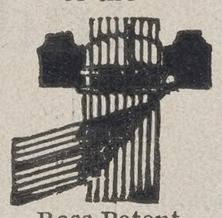
ARTISTIC RELIEF DECORATIONS IN PLASTER, CEMENT & COMPOSITION.

FINE GRILLE WORK. MODELING & WOOD CARVING.

SIDEWALK
—AND—
Vault Lights.

Sole Manufacturers of the

FLOOR and ROOF LIGHTS.



Ross Patent Light.

Dauchy Iron Works,
84, 86 and 88 Illinois Street,
CHICAGO, ILL.

Photogravure Reproductions.

THIS process is the most faithful, brilliant and satisfactory method of illustrating any object. Unequaled for Catalogue, Souvenir or Advertising purposes. The original negative preferred, but can work from any good, clear, sharp photograph. The photogravure plates of THE INLAND ARCHITECT are specimens of our work. For further particulars and prices, address

PUBLISHERS THE INLAND ARCHITECT.

Architects, go Fishing,

AND "REMEMBER"
THE BEST ROD IS A

STEEL ROD

IF MADE RIGHT.

The two great requisites in a rod, perfect material and perfect balance, are found in the fly and bait casting

BRISTOL STEEL FISHING RODS...

MADE BY

The Horton Manufacturing Co.
BRISTOL, CONN.

Sold by all First-class Dealers in Sporting Goods.

SEND FOR CATALOGUE

FOLSOM SNOW GUARD CO.

116 South St., BOSTON, MASS.

SALE AGENTS FOR

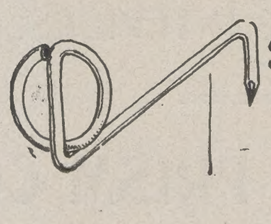
Shulls' Overhead Sash Pulleys.

THE COMING WINDOW PULLEY.

Great advance on Side Pulley.

Folsom Patent Roof Snow Guards,

For Old or New Roofs, Slate, Shingle or Tile,



SHOULD BE IN EVERY PITCH ROOF.

Imitations that strain the slates are cheaper, so may be substituted.

L. H. PRENTICE CO.

PROBABLY THE LARGEST FIRM OF THIS KIND IN THE WORLD.

EXCLUSIVELY

HEATING APPARATUS,

STEAM AND HOT WATER THAT ...

HEATS

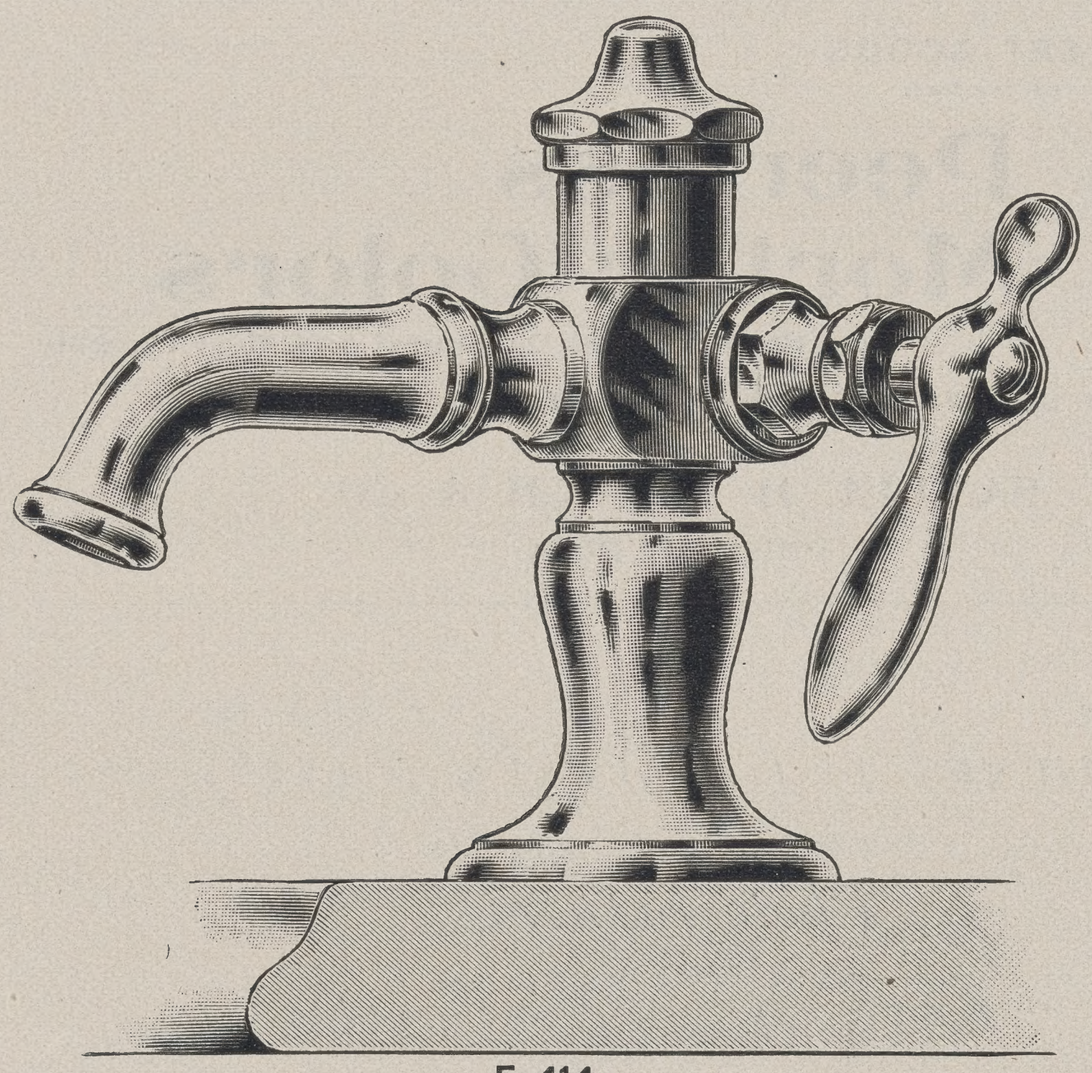
203-205 VAN BUREN ST. CORNER FRANKLIN. CHICAGO.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

L. WOLFF MANUFACTURING CO.

MANUFACTURERS OF

PLUMBING GOODS



E 414.

LAVATORIES, BATH TUBS,
WATER CLOSETS,
WATER CLOSET RANGES,
KITCHEN SINKS, SLOP SINKS,
PANTRY SINKS, WASHTUBS.

ALL KINDS OF

PLUMBERS' BRASS GOODS,
SOIL PIPE and FITTINGS,
VALVE BOXES, HYDRANTS,
STREET WASHERS, LEAD TRAPS,
GALVANIZED RANGE BOILERS.

The "Gielow" Self-Closing Faucet is especially adapted for use in hotels, offices and public buildings. These faucets have been in use for more than twelve years in railroad depots, hotels and prisons, being subjected to *severe usage;* in every case *without complaint* and *without* requiring a *repair* of any kind. There are no exposed working parts, works *without friction, cannot leak,* and is *simple in construction.* We recommend the "Gielow" to our customers desiring first-class, substantial self-closing work. Illustrated price list of "Gielow" work sent upon application.

General Offices, 93 West Lake Street,
Showrooms, 91 Dearborn Street, } *Chicago.*

BRANCHES:
DENVER, COLO.
MINNEAPOLIS, MINN.

Photogravure Reproductions.

THIS process is the most faithful, brilliant and satisfactory method of illustrating any object. Unequaled for Catalogue, Souvenir or Advertising purposes. The original negative preferred, but can work from any good, clear, sharp photograph. The photogravure plates of THE INLAND ARCHITECT are specimens of our work. For further particulars and prices, address

PUBLISHERS THE INLAND ARCHITECT.

Locations for Industries.

The name of the Chicago, Milwaukee & St. Paul Railway has long been identified with practical measures for the general upbuilding of its territory and the promotion of its commerce, hence manufacturers have an assurance that they will find themselves at home on the Company's lines.

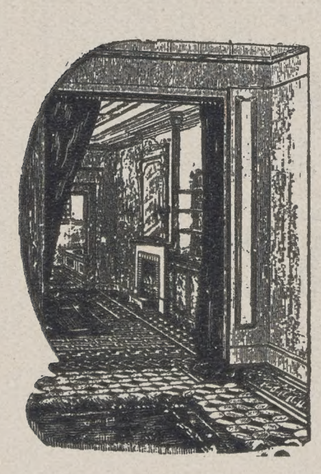
The Company has all its territory districted in relation to resources, adaptability and advantages for manufacturing, and seeks to secure manufacturing plants and industries where the command of raw material, markets and surroundings will insure their permanent success.

Mines of coal, iron, copper, lead and zinc, forests of soft and hard wood, quarries, clays of all kinds, tan-bark, flax and other raw materials exist in its territory in addition to the vast agricultural resources.

The Chicago, Milwaukee & St. Paul Railway Company owns 6,150 miles of railway, exclusive of second track, connecting track or sidings. The eight States traversed by the Company—Illinois, Wisconsin, northern Michigan, Iowa, Missouri, Minnesota, South Dakota and North Dakota—possess, in addition to the advantages of raw material and proximity to markets, that which is the prime factor in the industrial success of a territory: a people who form one live and thriving community of business men, in whose midst it is safe and profitable to settle.

A number of new factories and industries have been induced to locate—largely through the instrumentality of this Company—at points along its lines. The central position of the States traversed by the Chicago, Milwaukee & St. Paul Railway makes it possible to command all the markets of the United States. The trend of manufacturing is Westward. Confidential inquiries are treated as such. The information furnished a particular industry is reliable.

Address, **LUIS JACKSON,**
Industrial Commissioner, C. M. & St. P. R'y,
450 Old Colony Building, CHICAGO, ILL.



Hardwood Floors

Wood Carpets, Parquet Floors, Rug Borders.

Send for book of designs.

E. B. MOORE & CO.
48 & 50 Randolph Street,
CHICAGO, ILL.

Luminous Prisms

LIGHT DARK INTERIORS.

LUMINOUS PRISM CO.

601-604 Chicago Stock Exchange Bldg.

INDEX TO ADVERTISEMENTS.

Architects' Directory. Page
Comstock, W. T..... IX

Architectural Books.
Inland Publishing Co..... II

Architectural Drawing.
Deane, E. Eldon..... XV

Architectural Ironworks.
The Winslow Bros. Co..... II
The Champion Iron Co..... III

Architectural Journals.
Architecture and Building.. IX

Architectural Photographers.
Taylor, J. W..... II
Torgersen, H. E., & Co..... XII

Architectural Views.
Taylor, J. W..... II

Bicycles.
Imperial..... III

Boats (Ducking).
W. H. Mullins..... XVIII

Boiler Covering.
The Keasbey & Mattison Co. XII

Brass Bedsteads.
Adams & Westlake Co..... VII

Bricks (Pressed).
Chicago Hydraulic Press Brick Co..... XVII
Findlay Hydraulic Press Brick Co..... XVII
Illinois Hydraulic Press Brick Co..... XVII
Kansas City Hydraulic Press Brick Co..... XVII
Northern Hydraulic Press Brick Co..... XVII
Omaha Hydraulic Press Brick Co..... XVII
St. Louis Hydraulic Press Brick Co..... XVII

Brick (Enameled).
Hydraulic Press Brick Co... XVII
Tiffany Enameled Brick Co. IX

Brick (Ornamental).
Chicago Hydraulic Press Brick Co..... XVII
Findlay Hydraulic Press Brick Co..... XVII
Hydraulic Press Brick Co... XVII
Illinois Hydraulic Press Brick Co..... XVII
Kansas City Hydraulic Press Brick Co..... XVII
Northern Hydraulic Press Brick Co..... XVII
Omaha Hydraulic Press Brick Co..... XVII
Philadelphia & Boston Face Brick Co..... II

Builders' Hardware.
Orr & Lockett..... XVIII
The Yale & Towne Mfg. Co. XVIII
J. Bardsley..... III

Builders' Sundries.
Building Contracts..... XII
The Yale & Towne Mfg. Co. XVIII

Building Papers.
Cabot, Samuel..... III

Cements.
Meacham & Wright..... VIII
Thiele, E..... VIII

Concrete Construction. Page
Simpson Bros. Co..... VII

Contracts.
Standard or Uniform..... XII

Cordage.
Samson Cordage Works.... XVIII

Creosote Stains.
Cabot, Samuel..... III

Drawing Material and Implements.
Abbott, A. H., & Co..... XII

Dryers.
Chicago Clothes Dryer Wks. XVI

Electric Plants.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Elevators.
The J. W. Reedy Elevator Co..... V

Engineers.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Fireproofing.
Expanded Metal..... XVIII
Illinois Terra-Cotta Lumber Co..... VII
Mackolite Fireproofing Co.. VII
Pioneer Fireproof Construction Co..... VI

Fireproof Doors.
Fireproof Door Co..... XIII

Fishing Rods.
Horton Mfg. Co..... XV

Foreign Views.
Inland Publishing Co.....

Furnaces and Ranges.
Magee Furnace Co..... III

Galvanized Iron Works.
Apollo Iron & Steel Co..... XII

Gas Engines.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Glass—Illuminating.
Enclosed Prism Co..... II
Luminous Prism Co..... XIV
Luxfer Prism Co..... XII

Half-Tone Engraving.
Inland Publishing Co..... V

Heating.
Buffalo Forge Co..... XIII
Prentice, L. H., Co..... IX

Heating and Ventilating Apparatus.
Buffalo Forge Co..... XIII

Hot-Water Heaters.
Wilks, S., Mfg. Co..... XIV

Ice and Refrigerating Machinery.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Kitchen Cabinets. Page
Queen Kitchen Cabinet Co..

Laundry Dryers.
Chicago Clothes Dryer Wks. XVI

Locks.
The Yale & Towne Mfg. Co. XVIII

Mail Chutes.
Cutler Manufacturing Co... V

Mechanical Stokers.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Metal Ceilings.
Berger Mfg. Co..... IX

Mortar Colors.
French, S. H., & Co..... IX

Moldings, Mirrors, Frames.
Geo. C. Mages Company.... V

Paints, Oils and Varnishes.
Aquila Rich Co..... V
Joseph Dixon Crucible Co.. XIII
Wadsworth-Howland Co... XVIII

Pencils.
Joseph Dixon Crucible Co.. XIII

Perspectives.
Care INLAND ARCHITECT... IV

Photographers.
Torgersen, H. E., & Co..... XII

Photographic Materials.
Martin G. Good..... VIII

Photogravure Reproductions.
Inland Publishing Co..... X

Plumbing Supplies.
Randolph & Clowes..... XII
Smith & Anthony Co..... IV
Wolff, L., Mfg. Co..... X

Portland Cement.
Dyckerhoff..... VIII
Saylor's Portland..... XIV

Printers.
The H. O. Shepard Co..... IV

Radiators.
Prentice, L. H., Co..... XV

Railroads.
Big Four Route..... XVI
Chicago & Alton..... IV
Chicago, Burlington & Quincy..... IX
Chicago, Milwaukee & St. Paul..... X
Grand Trunk Lines..... V
Illinois Central..... IV
Monon and C. H. & D. Route VIII
Wisconsin Central..... IV

Reflectors.
Frink, I. P..... VIII

Roofers and Roofing Material.
Apollo Iron & Steel Co..... XII
Merchant & Co..... VIII
Taylor, N. & G., Co..... VI

Sanitary Appliances.
Cudell, F. E..... VII
The Kenney Co..... V
The Sieben Trap and Specialty Co..... V
Wolff, L., Mfg. Co..... X

Sash Cords and Chains. Page
Smith & Egge Mfg. Co..... XIV
Samson Cordage Works.... XVIII

Sash Locks.
The W. & E. T. Fitch Co.... II

Shingle Stain.
Cabot, Samuel..... III
Dexter Bros..... XVI
Wadsworth-Howland Co... XIII

Sidewalk and Vault Lights.
Brown Bros. Mfg. Co..... V
Dauchy & Co..... IX
Richards & Kelly..... XIII

Snow Guards.
Folsom Snow Guard Co..... IX

Spring Hinges.
Smith & Egge Mfg. Co..... XIV
J. Bardsley..... III

Stained and Decorative Glass.
Androvette, Geo. E., & Co.. XIV
Flanagan & Biedenweg.... VIII
Healy & Millet..... XIII

Steam Engines.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Steam and Hot Water Heating.
Prentice, L. H., Co..... IX

Steam Loops.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Steel Shutters.
Clark, Bunnett & Co..... XIV

Stokers.
Westinghouse, Church, Kerr & Co..... IV
The Westinghouse Machine Co..... IV

Temperature Regulator.
The Powers Regulator Co.... XIV

Terra-Cotta.
Northwestern Terra-Cotta Works..... II
Winkle Terra Cotta Co..... VI

Valves (Steam).
Jenkins Bros..... XIV

Ventilation.
Buffalo Forge Co..... XIII
Merchant & Co..... VIII

Water Color Perspectives.
Buck, Lawrence.....

Water Heaters.
Wilks, S., Mfg. Co..... IX

Weather Vanes.
Jones, Thomas W..... XIV

Window Blinds.
Geo. Poppert Mfg. Co..... V

Window Lines.
Samson Cordage Works.... XVIII

Wood Carpet.
Chicago Floor Co..... XIII
Moore, E. B., & Co..... X

Wood Doorknobs.
J. Bardsley..... III

APOLLO BEST BLOOM GALVANIZED IRON.

There is but one American galvanized iron first-class.
Apollo-best bloom is the brand.

Apollo Iron and Steel Company
Vandergrift Building
Pittsburg, Pennsylvania

SAVES TIME AND MONEY.

THE UNIFORM CONTRACT

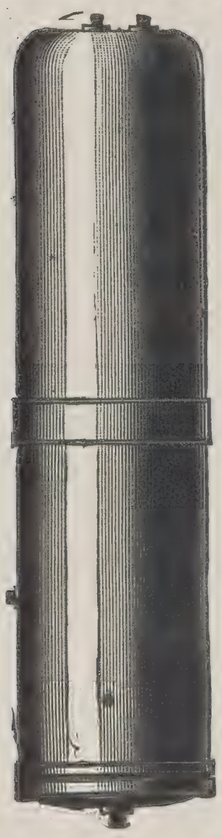
SAVES TIME IN WRITING CONTRACTS.
SAVES TIME IN READING CONTRACTS.
SAVES TIME LOST IN LITIGATION.

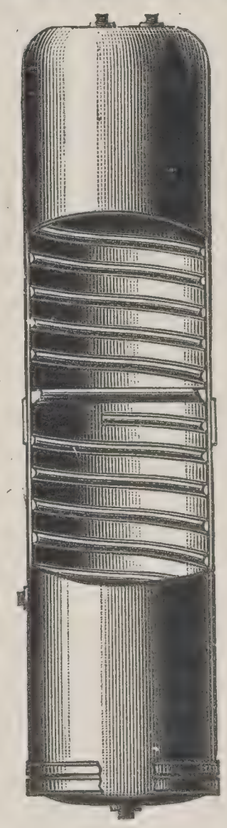
Saves Money for Owner, Architect and Contractor.

$1.10 per 100, $4.50 per 500, $8.00 per 1,000, free by mail or express.

INLAND PUBLISHING CO.,
609-610 Manhattan Building, Chicago.

WHEN YOU WRITE
Plumbing Specifications
..... CALL FOR .....
BROWN BROS.'
SEAMLESS DRAWN
COPPER
RANGE BOILER





AND YOU WILL GET THE BEST HOUSE RANGE BOILER OBTAINABLE.

Do not add the words "or equal," for they have no equal.
There are neither rivets to loosen nor brazed seams; hence no leaks.
Thoroughly tinned on inside and GUARANTEED to stand a working pressure of 150 pounds.
Extra heavy GUARANTEED to 200 pounds.

GUARANTEED NOT TO COLLAPSE.

BOOKLET FOR THE ASKING.

RANDOLPH & CLOWES,
SOLE MANUFACTURERS,
Box 12, WATERBURY, CONN.

ARCHITECTS!
BY
LUXFER PRISMS
YOU CAN
BRING IN
DAYLIGHT
WITHOUT THE USE OF LARGE LIGHT WELLS.

OFFICES.
New York City, Mohawk Bldg., 160 Fifth Ave.
Boston, Equitable Building.
Philadelphia, 904 Chestnut Street.
Cleveland, 126 Superior Street.
Pittsburg, 808 Tradesmen's Building.
St. Louis, American Central Building.
Baltimore, 120 E. Baltimore Street.
Cincinnati, 323 Walnut Street.
New Orleans, Hennan Building.
Indianapolis, 1005 Stevenson Block.

LUXFER PRISM CO.
General Offices, "THE ROOKERY," CHICAGO.

DRAWING INSTRUMENTS
A. H. ABBOTT & CO.
Drawing Supplies,
Instruments, Tracing Cloth, Papers, Colors, Scales, Levels, Transits, Etc.
BLUE PRINTS.
50 Madison Street, CHICAGO.

THE BEST COVERING IN EXISTENCE.
MAGNESIA
STEAM PIPE AND BOILER
COVERINGS
The Great Coal Saver.
THE KEASBEY & MATTISON CO.,
CINCINNATI. CLEVELAND. AMBLER, PA. MINNEAPOLIS. LOUISVILLE.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

WADSWORTH-HOWLAND COMPANY,
PAINT AND COLOR GRINDERS,

Telephone, No. 2085 Main.

127-131 W. Harrison St.
Chicago.

COTTAGE SHINGLE STAINS

20 HANDSOME SHADES.

CARBURET BLACK
The Great Preservative for all exposed Metal or Wood Surfaces.

Not affected by climatic changes, brine or acid fumes. Recommended especially for protection of bridges, roofs, structural iron, fire escapes, etc.

FIRE-PROOF
INTERIOR FINISH...

ARTISTIC EXECUTION.
ANY DETAIL. ANY FINISH.

The entire Interior Finish in the Forester's Temple Building is in our Metal-Covered Finish....

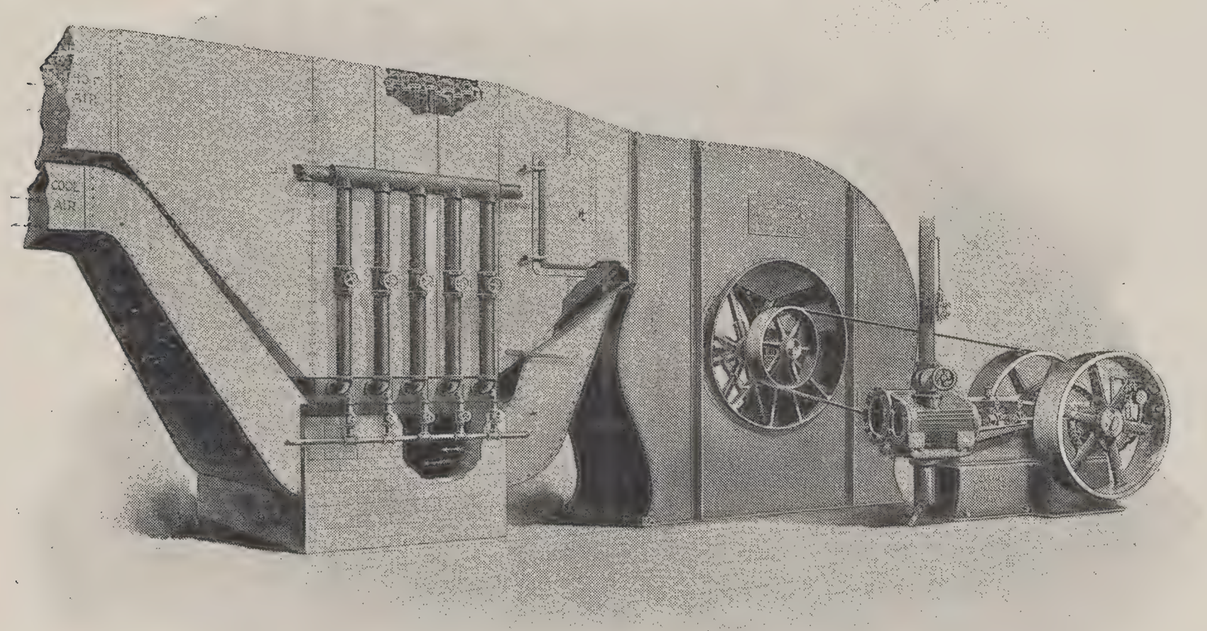
Entrance to Forester's Temple Building, Toronto, Ont.

Fire-Proof Door Co.

MINNEAPOLIS, MINN.

160 Fifth Avenue,
NEW YORK.

Buffalo Fan System
of Heating, Ventilating, Drying and Cooling.



Apparatus arranged for a Double Duct System.

Electric Light Engines, Forges, Blowers, Exhausters.

Buffalo Forge Co.
BUFFALO, N. Y., U. S. A.
New York. Chicago. Pittsburg. Philadelphia.

Richards & Kelly Mfg. Co.
MANUFACTURERS OF
RICHARDS & KELLY MFG. CO. CHICAGO ILL.
SIDEWALK LIGHTS,
FLOOR AND SKY LIGHTS,
389-391 Twenty-third Street,
Send for Catalogue. CHICAGO, ILL.

Advance News
INDICATING
Chances to Sell
PLANS, FIXTURES,
MATERIALS, FURNITURE,
MACHINERY,
May be secured with promptness, accuracy and thoroughness, and at reasonable rates, from

THE PRESS CLIPPING BUREAU,
ROBERT AND LINN LUCE,
78 Park Place, NEW YORK. 68 Devonshire St., BOSTON.
Pike Bldg., CINCINNATI. Cooper Bldg., DENVER.

DIXON'S SILICA GRAPHITE PAINT

FOR TIN OR SHINGLE ROOFS AND IRON WORK. IT IS ABSOLUTELY WITHOUT AN EQUAL.

Tin roofs well painted have not required repainting for 10 to 15 years.

If you need any paint it will pay you to send for circular.

JOSEPH DIXON CRUCIBLE CO., Jersey City, N. J.

HEALY & MILLET,
Stained Glass and Frescoing,
225 WABASH AVE., CHICAGO.

MEDAL AT UNIVERSAL EXPOSITION, PARIS, 1889.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

PRIZE MEDALISTS.

Exhibitions of 1862, 1865, 1867, 1872, 1873, and only Award and Medal for Noiseless Steel Shutters at Philadelphia, 1876; Paris, 1878; and Melbourne, 1881.

CLARK'S ORIGINAL PATENT NOISELESS

Self-Coiling Revolving **STEEL SHUTTERS** Fire and Burglar Proof.

Improved Rolling Wood Shutters and Patent Metallic Venetian Blinds

Catalogues, Circulars, Price Lists, etc., on application.

CLARK, BUNNETT & CO. (LIMITED),

OFFICE AND WORKS:

162 and 164 West 27th Street, New York.

We claim the following merits for JENKINS BROS.' VALVES.

1. Manufactured of the best Steam Metal.
2. No regrinding, therefore not constantly wearing out the Seat of the Valves.
3. Contain JENKINS DISC, which is suitable for all Pressures of Steam, Oil, and Acids.
4. The Easiest Repaired, and all parts Interchangeable.
5. Every Valve Tested before leaving the factory.
6. ALL GENUINE stamped with Trade Mark.

JENKINS BROTHERS, New York, Philadelphia, Chicago, Boston.

AVOID EXTREMES

Of heat and cold, by using

THE POWERS SYSTEM

—OF—

Temperature Regulation.

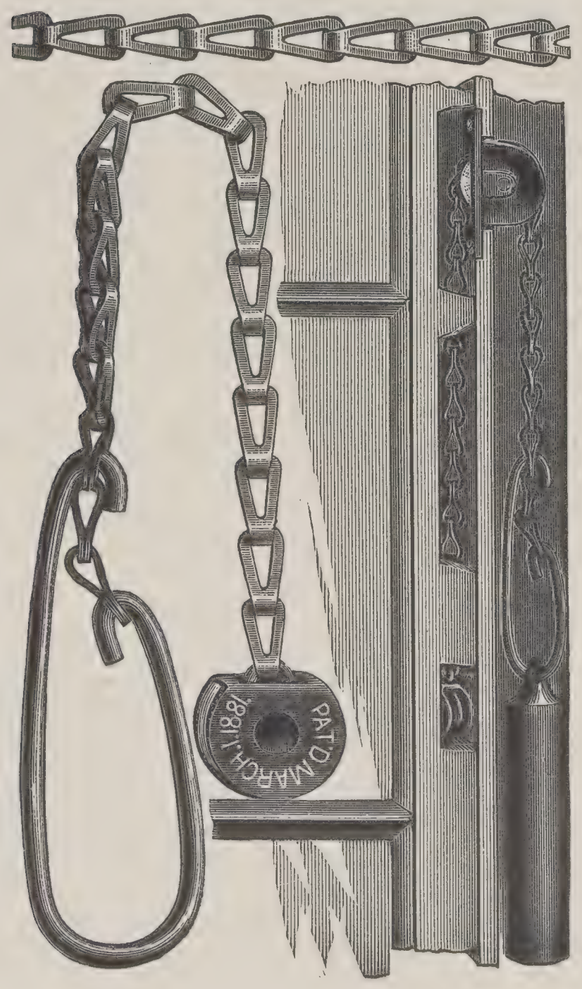
Applicable to all kinds of heating apparatus in Schools, Churches, Residences, Office Buildings, etc.

SEND FOR CATALOGUES.

The Powers Regulator Co., 36 Dearborn Street, Chicago.

54 John Street, New York. 45 Oliver Street, Boston.
508 Union Trust Bldg., St. Louis. 36 Builders' Exchange, Buffalo.

Twenty Years' Use has demonstrated that . . . . .



DURABILITY

is the essential point in Sash Chain.

"GIANT" Metal Sash Chain

is being constantly imitated in appearance, but no one has succeeded in equaling its

WEARING QUALITIES.

The Bronze costs 40 per cent more than any other Sash Chain metal.

MANUFACTURED ONLY BY

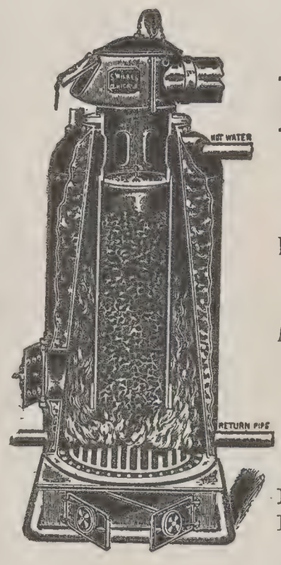
THE SMITH & EGGE MFG. CO.,

BRIDGEPORT, CONN.

HEADQUARTERS FOR

Sash and Cable Chains,

High-grade Sash Pulleys and Fixtures.



Wilks' Hot Water Heaters and Steam Generators.

Best in Use for all Purposes Heating and Supplying Hot Water.

All Steel. No Coils or Flues. All Sizes.

SEND FOR CATALOGUE.

S. Wilks Mfg. Co.

51-53 S. Clinton St., Chicago.

N. S. BOUTON, Pres.
E. H. SEDGWICK, Treas. and Gen. Mgr.

STAINED GLASS

FOR **DWELLINGS** AND **CHURCHES.**

The Best Work at Lowest Prices.

LUMINOUS PRISM CO.

Successors to

GEO. E. ANDROVETTE & CO.

27-29 SO. CLINTON STREET.

SUPERIOR

Copper Weather Vanes.

GILDED WITH PURE GOLD.

Church Crosses,
Tower Ornaments,
Finials, Etc., Etc.

Vanes made from any drawing or design on short notice.

T. W. JONES,

Successor to CHAS. W. BRIGGS,
" " V. W. BALDWIN.

170 and 172 Front Street,
NEW YORK.

Illustrated Catalogue of over 250 designs, mailed to any address on receipt of a two-cent stamp, half the postage.

Reproductions

FROM

Drawings,
Photographs, Etc.

BY THE MOST IMPROVED OF THE

Half-Tone and Photogravure Processes

. . . BY . . .

The Inland Publishing Co.

610 Manhattan Building, - CHICAGO, ILL.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXXII. OCTOBER, 1898. No. 3

A Monthly Journal Devoted to

ARCHITECTURE,

CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

PUBLISHED BY THE INLAND PUBLISHING CO.,

609-610 MANHATTAN BUILDING, CHICAGO, ILL.

L. MULLER, Jr., Manager. ROBERT CRAIK McLEAN, Editor.

SPECIAL CONTRIBUTORS:

DANKMAR ADLER,	D. H. BURNHAM,	W. L. B. JENNEY,
HENRY VAN BRUNT,	P. B. WIGHT,	IRVING K. POND,
LOUIS H. SULLIVAN,	ALLEN B. POND,	J. R. WILLETT,
WILLIAM S. MACHARG.	C. E. ILLSLEY.	F. W. FITZPATRICK.

TERMS: Regular number, $5 a year; Photogravure edition, $10 a year. Single copies, Regular number, 50c.; Photogravure edition (including 7 photogravures), $1. Advance payment required.

The columns and illustration pages of THE INLAND ARCHITECT are open to all alike, merit and availability only determining what shall be published. Contributions appropriate to its pages are always desired.

AMERICAN INSTITUTE OF ARCHITECTS.

OFFICERS FOR 1898:

PRESIDENT	GEORGE B. POST, New York, N. Y.
SECRETARY	ALFRED STONE, Providence, R. I.
TREASURER	SAMUEL A. TREAT, Chicago, Ill.

VICE-PRESIDENTS:

FIRST VICE-PRESIDENT .	W. L. B. JENNEY, Chicago, Ill.
SECOND VICE-PRESIDENT .	C. HOWARD WALKER, Boston, Mass.

BOARD OF DIRECTORS:

For three years.

E. H. Kendall, New York, N. Y.	George W. Rapp, Cincinnati, Ohio.
Cass Gilbert, St. Paul, Minn.	Edmund M. Wheelright, Boston, Mass.
James S. Rogers, Jr., Detroit, Mich.	Glenn Brown, Washington, D. C.
W. G. Preston, Boston, Mass.	G. A. Frederick, Baltimore, Md.

For two years.

W. C. Smith, Nashville, Tenn.	James B. Cook, Memphis, Tenn.
Levi T. Scofield, Cleveland, O.	Geo. B. Ferry, Milwaukee, Wis.
*John M. Carrere, New York, N. Y.	Henry Van Brunt, Kansas City, Mo.
W. M. Poindexter, Washington, D. C.	Jno. M. Donaldson, Detroit, Mich.

For one year.

*Daniel H. Burnham, Chicago, Ill.	Normand S. Patton, Chicago, Ill.
J. W. McLaughlin, Cincinnati, Ohio.	*Robert D. Andrews, Boston, Mass.
*William S. Eames, St. Louis, Mo.	F. Miles Day, Philadelphia, Pa.
Charles F. McKim, New York, N. Y.	H. Langford Warren, Boston, Mass.

*These with President, Secretary and Treasurer ex-officio, form Executive Committee to January 1, 1899.

STANDING COMMITTEES FOR 1898:

Committee on Foreign Correspondence.—W. L. B. Jenney, chairman, Chicago, Ill.; R. S. Peabody, Boston; Theo. Carl Link, St. Louis, Mo.; C. F. McKim, New York; Thomas Hastings, New York.

Committee on Education.—H. Langford Warren, chairman, Boston, Mass.; Henry Van Brunt, Kansas City, Mo.; Theopilus P. Chandler, Philadelphia, Pa.; C. Howard Walker, Boston, Mass.; Cass Gilbert, St. Paul, Minn.

Committee on Publication and Library.—Frank Miles Day, chairman, Philadelphia, Pa.; J. W. Yost, Columbus, O.; Frank E. Kidder, Denver, Colo.; Cass Gilbert, St. Paul, Minn.; W. R. Briggs, Bridgeport, Conn.

Committee upon Conservation of Public Buildings.—Richard Upjohn, chairman, New York, N. Y.; the Presidents of the several Chapters.

Death of Thomas Fuller, Architect.

Thomas Fuller, who for almost twenty years has been the architect for the Canadian Government, died at Ottawa, on September 20. Thomas Fuller was born in England, in 1823, and came to Canada in 1857, and located in Toronto. In 1859 he was the successful competitor for the designing of the parliament and departmental buildings at Ottawa, receiving the first prize for the former, and second prize for the latter, and which was erected under his plans and supervision. His designs for these buildings and his subsequent work in Canada are notable. In 1867 Mr. Fuller was the successful competitor for the design of the State capitol at Albany, New York, and the first two stories of that building are according to his design. On his return to Canada, in 1881, he was appointed to the position of chief architect for the Department of Public Works, which he held until eighteen months before his death, when he was superannuated on account of failing health. His designs for public buildings are comparable with the best produced in the United States during the same period, the parliament buildings being superior to any except the national capitol.

Unwise Action by Labor Union.

Some weeks ago there appeared in one of the Chicago dailies an item to the effect that one of the large labor organizations of Chicago had passed a resolution condemning the present Civil Service Law of Illinois, adopted by and now in force in Chicago. We had hoped to see in some subsequent paper the announcement that this statement was erroneous, or that it was a snap verdict subsequently reconsidered, or that other labor organizations had taken occasion to put themselves on record against it. It is not necessary to contend that the present law is perfect or that it has been always administered with absolute fairness. But certainly all open-minded disinterested men not earning a livelihood by the dubious pursuits of the cheap city politician must have welcomed such a law as a long step forward in American political life, and must count its retention and fearless enforcement to be one of the fundamental obligations resting today on patriotic citizens. Latterly we have heard the comment made that the management of many of the workingmen's unions was tending to fall into the hands of men who bear the same relation to the rank and file of self-respecting industrious workingmen that the Bathhouse John-Hinkey Dink-Johnnie Powers type of politician bears to the majority of city voters. Such action as the above quoted item reports will do far more to encourage this impression in the minds of thoughtful men than a large number of ill-advised acts of petty tyranny currently ascribed to zealous union managers, whose retention in office is regulated by the strength of their pull instead of by the faithfulness and effectiveness of their work for the people. It behooves the rank and file of the unions to see to it that they are not misrepresented by their spokesmen on so vital a matter. It behooves the spokesmen to demonstrate that their leadership is upward and not downward, and that their attitude toward the commonwealth is that of conscientious guardianship and not that of conscienceless spoliation.

FROST—ITS AGENCY IN THE BUILDING ART.

BY FREDERICK BAUMANN, ARCHITECT, F. A. I. A.

WHEN the temperature of water approaches the freezing point, it expands in volume. When it crystallizes into ice this expansion reaches its climax. The result is, as we all know, that ice floats upon water. In early boyhood we are given what is called an explanation of the fact. Later on our attention is drawn to the circumstance that all mountain peaks crumble away under the ever-repeated action of frost, so that in course of long, long ages there will be no more elevations. We get impressed with a startling fact, bound to forever fasten itself broadly upon our mind. But does it? I am afraid this question remains somewhat open. My observation during the past has been to some extent of a negative character. Though great progress has been made in every branch of the building art, it may still be doubtful whether the relentless action of frost has received that consideration which it demands, and whether the preventive means employed are of a proper and efficient character.

The destructive agency of frost may operate at once upon work in progress of construction. It does slowly, yet persistently, interfere with the stability and duration of the works of man, though ever so thoroughly completed. All of them require more or less constant care as to their preservation. All, not excepting the most massive, crumble away under the action of the tooth of time; they are in this regard, indeed, not any more favored than are the mountain cliffs of mother nature. Somewhat favored appear to be the monuments reared in a climate where frost is a stranger. The pyramids of Egypt, perhaps very much beyond six thousand years old, owe their preservation not alone to the solidity of their construction, but—and principally so, as I believe—to the fact that there is little rain and next to no frost in Egypt. In our climate a fraction of the time, undoubtedly, would turn even a Cheops pyramid into a shapeless mass of debris.

PRELIMINARY CONSIDERATIONS.

Common mortar depends in its binding quality upon two kinds of chemical action. The one is gradually induced by the slow but continued contact of the caustic lime upon the grains of sand, the other is a more rapid mutual action of sundry so-called impurities of the lime. These are the ingredients which to the extent of their quantity turn lime into cement. The purer the limestone, the more free the carbonate of lime from admixture with foreign ingredients, the slower will be the hardening process of the mortar. Pure lime will slake with rapidity and with development of intense heat. Alone, by itself, it will not harden, and may be preserved in closed vats. It will there for years and years keep fit for practical use.

Lime of this character, however, is very seldom, if ever—thanks to good nature—found in our country. Our limes are slow-slaking with a more limited development of heat. They harden by themselves, cannot be kept in vats for future use, and, therefore, are mixed into mortar while still hot. The great advantage of this mortar is the comparative rapidity of its hardening process. The average Chicago mortar, properly mixed and applied, will harden in a brick wall within a time of about four years, while German mortar, made of the renowned lime of Ruedersdorf near Berlin, may require half a century or more before attaining to an equal degree of solidity. Hence the far more strict regulations of the Berlin building department in regard to thickness of walls and bonding of the courses of brick.

The degree of heat required to burn limestone increases with the degree of its impurity, and it lastly results that a portion of the silica therein contained becomes "unlocked." Originally inert, it is by intense heat turned into an active state, ready for chemical combination. And this state seems to be gradually increased by the caustic action of the lime. We thus obtain a mortar of superior binding property, such as is apt to mature to its ultimate hardness, within a comparatively brief space of time.

The intense heat applied in the process of *burning brick* is alike operative in converting part of *their* silica into an active state. Hence the superiority of hard burnt bricks as to adhesiveness to mortar. At many places the sand also contains a more or less minute proportion of soluble silica, attached, as it were, to each single grain of it. Hence the fact that fine sand, though ordinarily too fine for use, may nevertheless be adapted for good mortar. It should be carefully tested instead of being at once rejected. I have repeatedly found fine sand dug from building lots to be of good quality. I am also inclined to believe that most of our country sand is similarly constituted, to say nothing of its superiority owing to the sharpness of its grain. Land-sand may everywhere contain a beneficial, though ever so minute, proportion of such silica, which either is at once soluble or is more readily converted, by the caustic action of the lime, into a state of incipient solubility.

Limestone too much intermixed with foreign ingredients will cease to be fit for burning into lime. It may then be fit to be converted into cement. The amount of silica in it, unlocked by intense heat, is found to be in increased proportion. Silicates of magnesia, of clay, of iron, and others, are found, all ready then to enter into a solid combination with water. But the natural cements, ever so fortunately mixed by nature, and ever so carefully prepared by man, are found to be of more or less inferior quality. Experiments have revealed the true mixture of an ideal cement, and the fact is that nowadays there are many cements made as a result of artificially selecting, mixing and burning the ingredients. Portland cements have become a staple article the world over. Mother nature also has prepared and stored up cements about her volcanos. I refer to the Puzzolani in Italy and the Trass in the Rhenish lands, used by the ancient Romans as cementic admixtures to lime mortar.

THE EFFECT OF FROST.

Natural cements should never be used in freezing weather. The cement once frozen has lost all of its binding property. Thawed out it crumbles like mere sand. Portland cement, however, behaves very much better, and it is contended that some brands are especially fit for use in frosty weather. No proper explanation can as yet be offered as to this particular difference in quality.

Common mortar, however, should be considered as being subject to no detrimental change in its properties through the action of frost. On the contrary, it is improved. This is especially evident in all cases in which the mortar steadily continues—for a time of three to four months—to remain in a frozen state, so as to allow all surplus moisture to vaporize. Plastering thus "frozen dry" turns out to be the toughest and in every respect best kind of such work. Where roofing tile are jointed with mortar, the best work is ever obtained in steadily frosty weather, lasting long enough to allow the mortar to set. But the difficulty in our climate is that such steady frost-weather can never be depended upon. We are bound to resort to artificial heat in processes of plastering, to say nothing of the advantage in saving time. A peculiar property of frozen mortar is, that when a sudden thaw sets in, shortly after freezing, this mortar will become quite liquid. It will drop from the plastering lath, will also freely ooze out from the joints in a stone wall.

Stone walls should never be built in frosty weather, or at a time when frost may set in shortly thereafter. If the stones are laid in common cement mortar, they would be no better off than if laid in dry sand, if as well. If laid in lime mortar the case is even worse, because the mortar in heavy joints, where none or very little of its moisture is absorbed by the stone, becomes so liquid when thawing that it will freely ooze out from the joints and thus leave the masonry more or less unstable. In case stone walls are imperatively called for they should, therefore, not be built with lime—or common cement mortar. A proper kind of Portland cement is required. Considering this as to expense and as to the possibility that the kind of Portland cement chosen is not the proper one, it would appear to be like a positive rule for every practitioner to avoid in frosty weather the use of common stone on any kind of walls. (1)* Foundations may be of dimension stone bedded in sand merely; basement walls of brick laid in lime mortar. In case exterior faces of these walls are to be shielded against dampness, it would be utterly useless to apply the usual cement mortar coating, the full efficiency of which is doubtful in any case.

The proper material for masonry construction in winter time is *brick*, subject to the following rules, which must be observed:

1. *The brick to be kept dry* under a shelter. (2) Brick used in such time contain the amount of humidity required for adhesion

---

* Numbers in the text refer to corresponding numbers in the Addenda concluding this article.

DESIGN FOR CONGREGATIONAL HOUSE, BOSTON, MASSACHUSETTS.

SHEPLEY, RUTAN & COOLIDGE, ARCHITECTS.

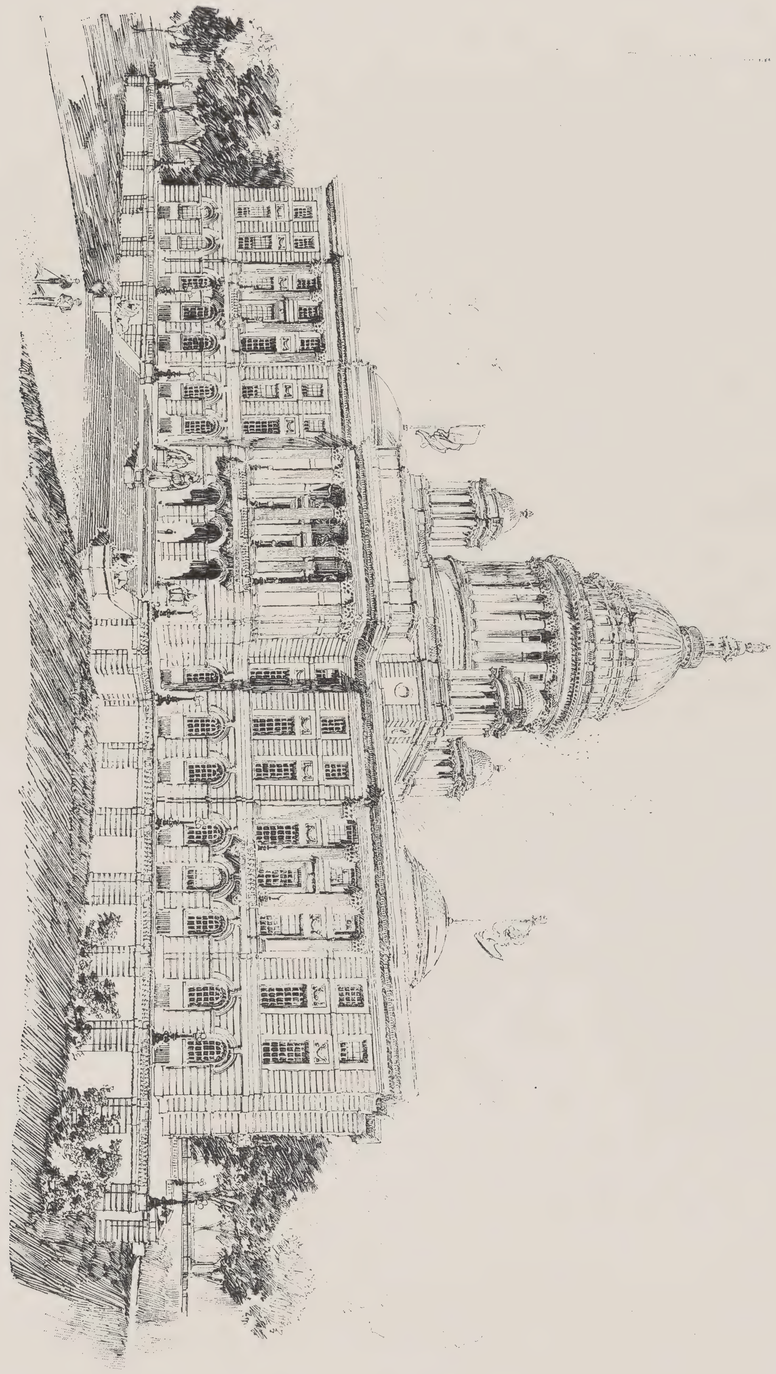
LOUNGING ROOM, ROCKAWAY HUNT CLUB.

ROCKAWAY HUNT CLUB, CEDARHURST, LONG ISLAND.

LORD, HEWLETT & HULL, ARCHITECTS, NEW YORK.

VIEW OF END UNDER CONSTRUCTION, STATE CAPITOL, PROVIDENCE, RHODE ISLAND.

McKIM, MEAD & WHITE, ARCHITECTS.



STATE CAPITOL, PROVIDENCE, RHODE ISLAND.

McKIM, MEAD & WHITE, ARCHITECTS, NEW YORK.

PUBLIC SHELTER BUILDING.
BELLE ISLE-DETROIT-MICH-

EDW^A-SCHILLING.
ARCHITECT.

SKETCH FOR MR/ NEWCOMB'S RESIDENCE
NEW LONDON CONN^

District Architect

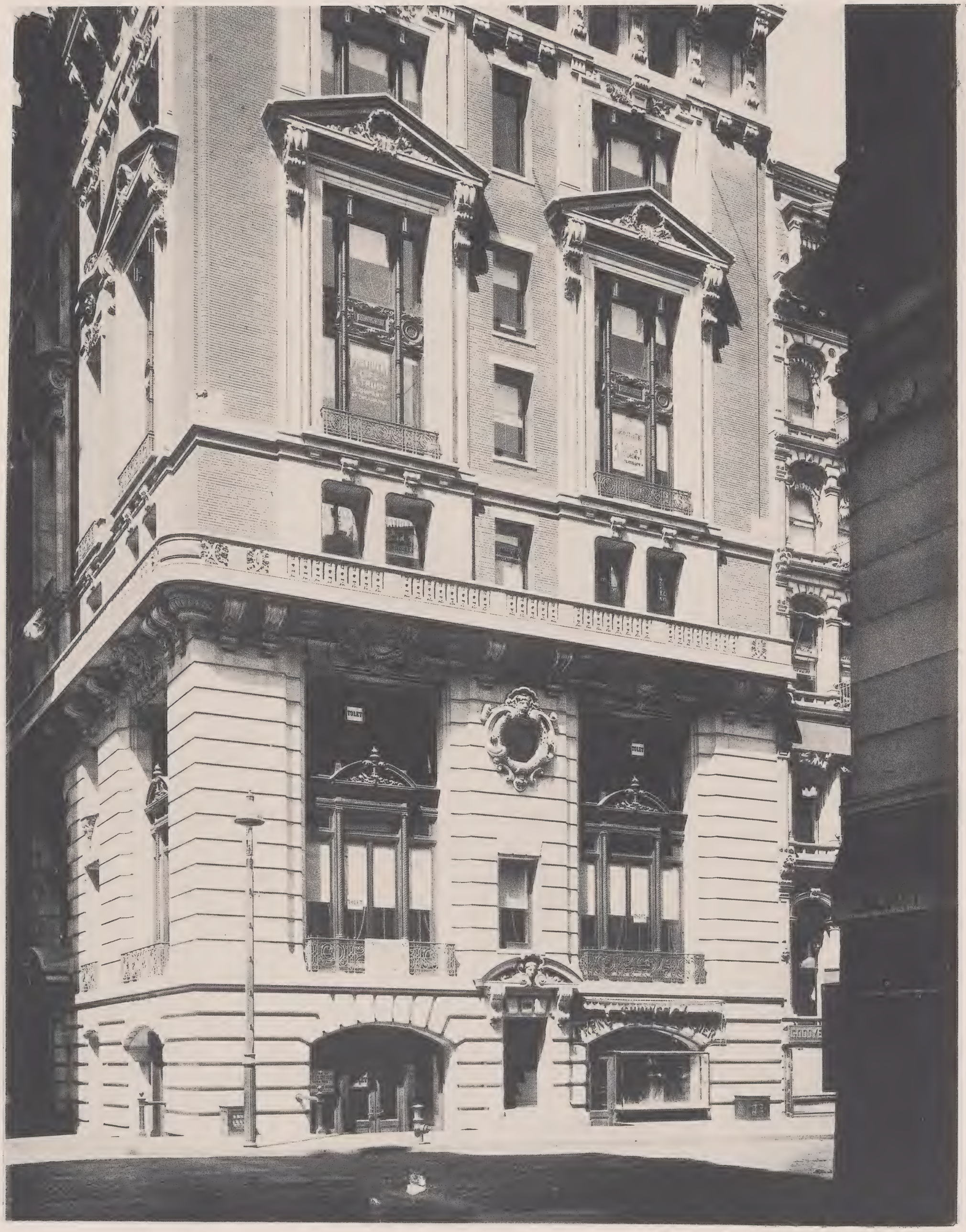
RESIDENCE OF A. D. JUILLIARD, TUXEDO PARK, TUXEDO, NEW YORK.

HOWARD & CAULDWELL, ARCHITECTS, NEW YORK.

INLAND ARCHITECT PRESS.

DETAIL OF WASHINGTON LIFE BUILDING, NEW YORK.

C. L. W. EIDLITZ, ARCHITECT.



INLAND ARCHITECT PRESS.

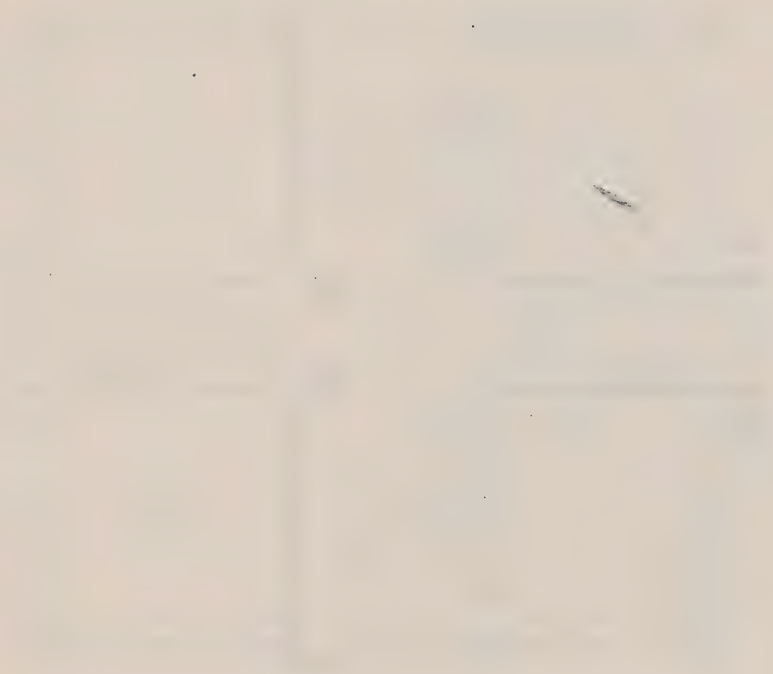
DETAIL OF SINGER BUILDING, NEW YORK.

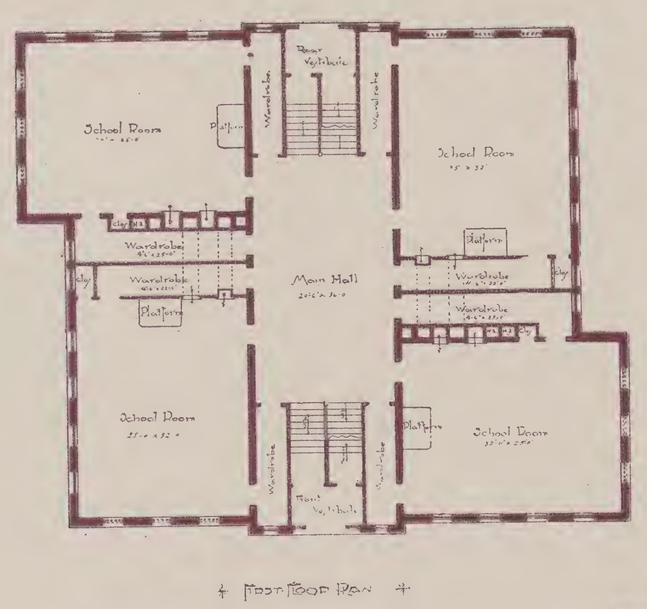
EARNEST FLAGG, ARCHITECT.

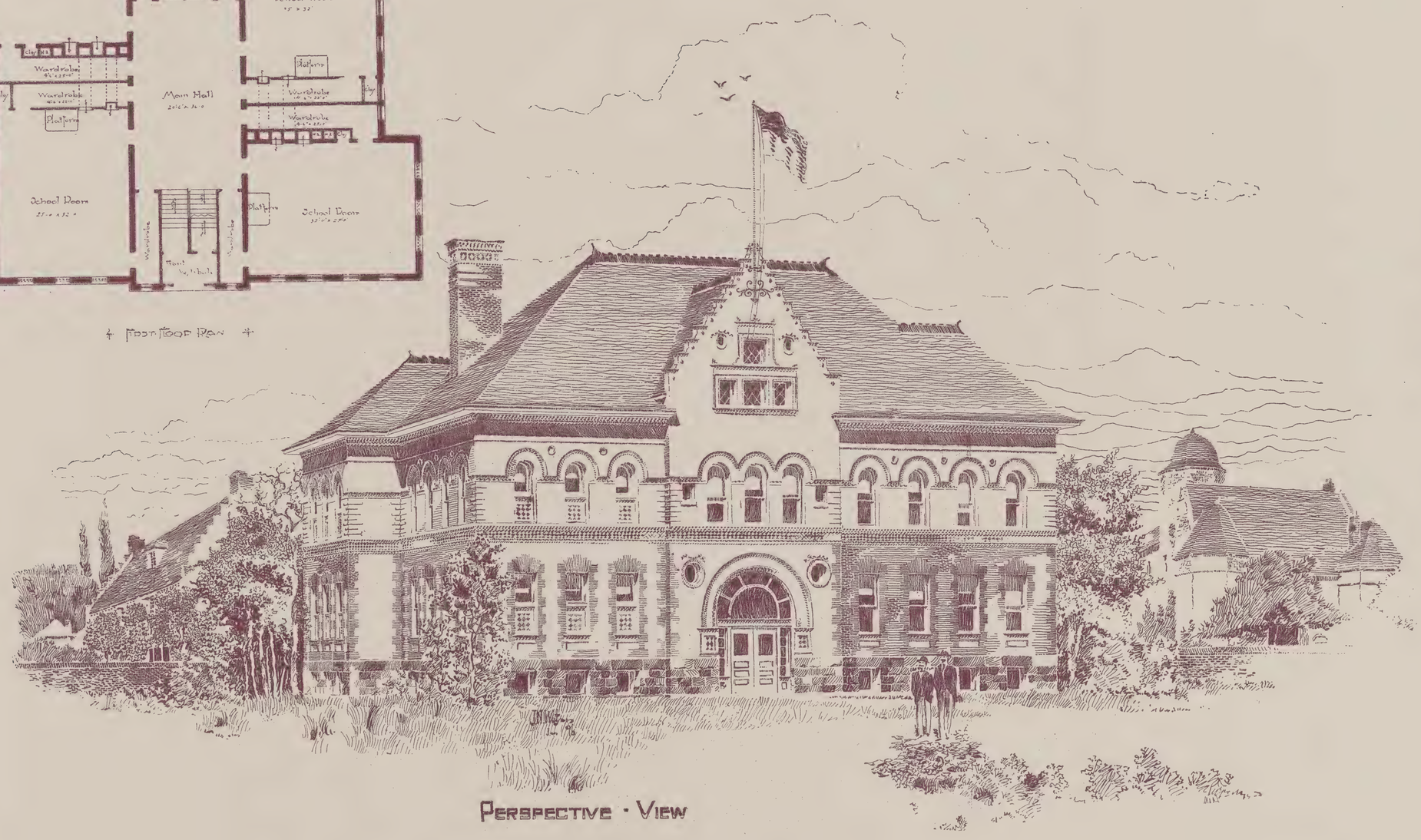
INLAND ARCHITECT PRESS

DETAIL OF ANDERSON BUILDING, NEW YORK.

R. S. TOWNSEND, ARCHITECT.



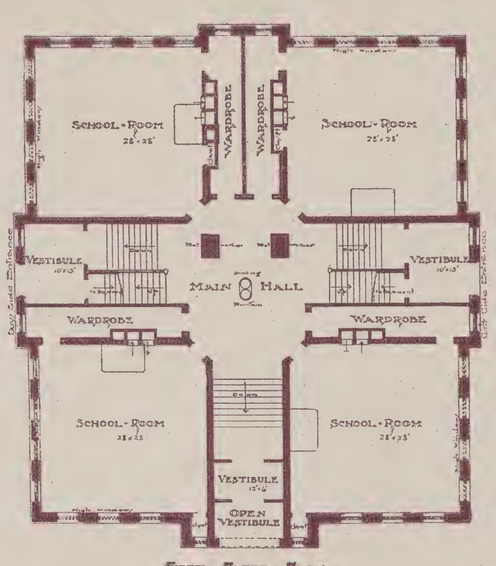




PERSPECTIVE · VIEW

SCHOOL BUILDING.

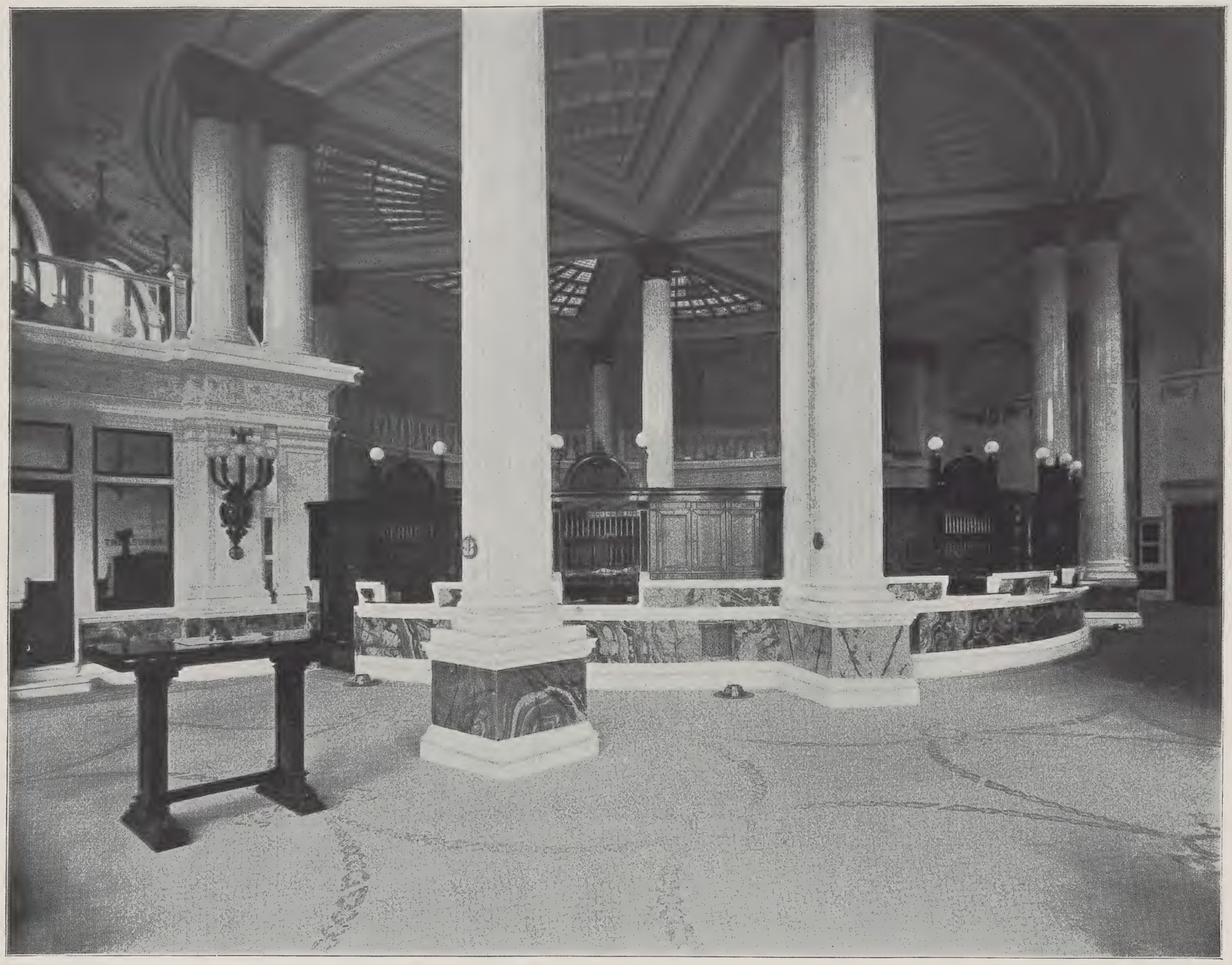
REEVES & BAILLIE, ARCHITECTS, PEORIA, ILLINOIS.



FIRST · FLOOR · PLAN

SCHOOL BUILDING.

REEVES & BAILLIE, ARCHITECTS, PEORIA, ILLINOIS.

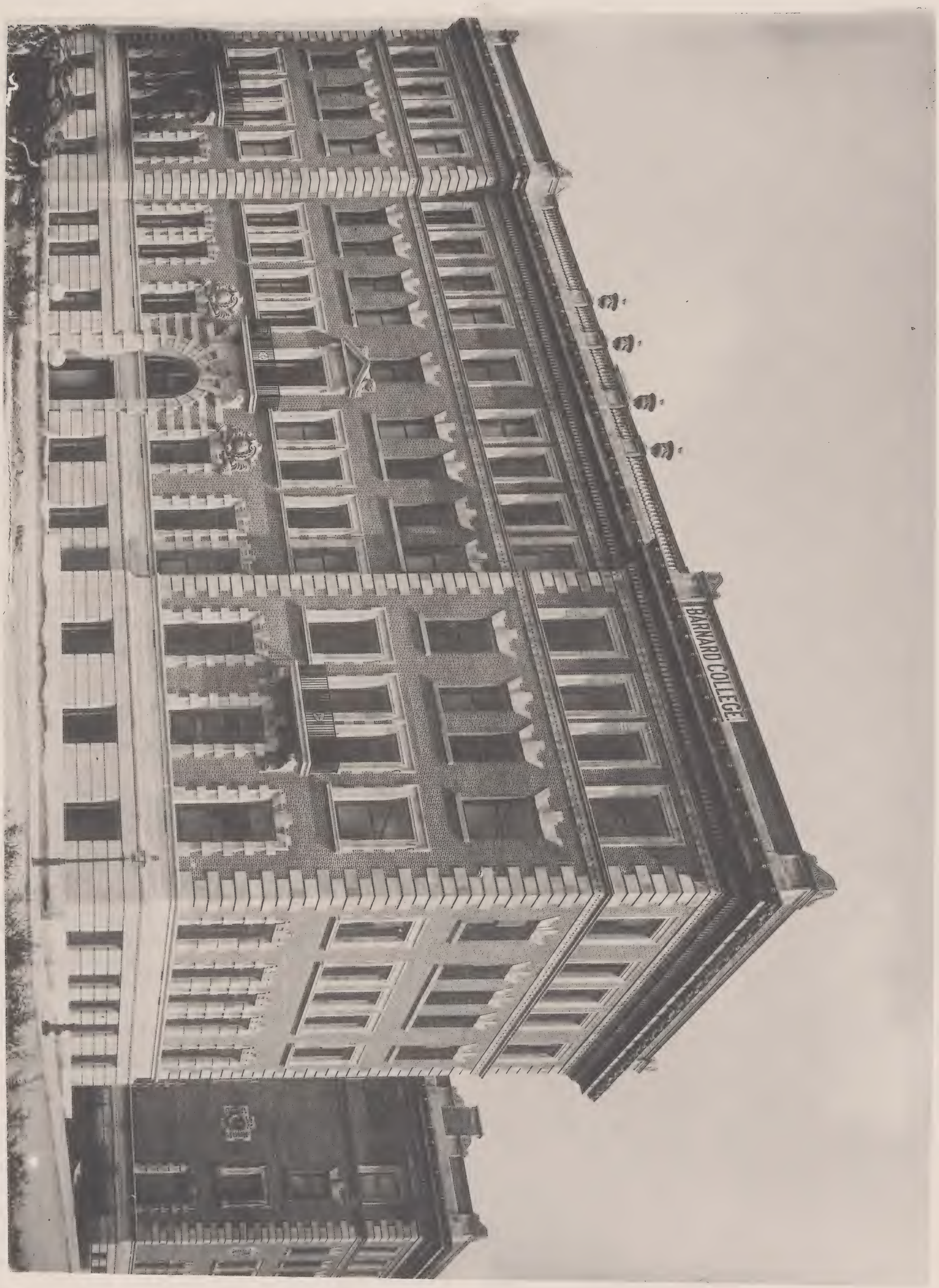


INTERIOR VIEW, ONONDAGA COUNTY SAVINGS BANK, SYRACUSE, NEW YORK.

R. W. GIBSON, ARCHITECT, NEW YORK.

SCHOOL BUILDING, OAK PARK, ILLINOIS.

PATTON, FISHER & MILLER, ARCHITECTS, CHICAGO.



SIDE VIEW, BARNARD COLLEGE, NEW YORK CITY.

LAMB & RICH, ARCHITECTS.

INLAND ARCHITECT PRESS.

Inland Architect Press.

DETAIL OF ENTRANCE, EMPIRE BUILDING, NEW YORK CITY.

Kimball & Thompson, Architects.

INTERIOR VIEW, COLUMBIA UNIVERSITY LIBRARY, NEW YORK.

McKIM, MEAD & WHITE, ARCHITECTS.

RESIDENCE OF PAUL BLATCHFORD, OAK PARK, ILL.

POND & POND, ARCHITECTS, CHICAGO.

INLAND ARCHITECT PRESS.

INLAND ARCHITECT PRESS.

VIEW OF SOUTH SIDE, RESIDENCE OF PAUL BLATCHFORD, OAK PARK, ILL.

POND & POND, ARCHITECTS, CHICAGO.

to the mortar, and in winter, as everybody knows, the chances for drying are slow. The rule as to wetting brick must by all means be suspended.

2. *The brick to be laid with close joints*, enough so to assure an absorption of all superfluous water from the mortar bed. To this effect it may even be required to pound the brick down on their bed. Experience teaches that mortar joints of the kind thus carefully made, will not measurably expand when they freeze, and that hence they remain solid after a thaw has set in, even if they had been kept in a frozen state for only a few days. We may at once conclude from the above that it is altogether practicable to erect cut stone veneered fronts during winter, their stability depending on an absolute solidity of the backing obtained by the use of dry common brick laid with the proper close joints. It does, on the other hand, by no means follow that care could be dispensed with on work carried on in a fair season. Every good mason knows the importance of care and foresight to be applied on his work in any season, and that it is merely a special, a higher degree of such care which he must keep on his mind and observe during frosty weather. He is bound in any and every case to back up cut stone or pressed brick fronts so that there will be uniform shrinkage of the work, where there is shrinkage at all. (3)

QUALITY OF WINTER WORK.

Contrary to general opinion on the part of the public, it must be stated as a fact that masonry is *improved in its quality* by the action of frost, provided it has received the amount and degree of care required. It is in disrepute because the conditions on which success depends have so seldom been altogether well observed, even if they were at all understood. When mortar freezes, when the ultimate parts of its humidity expand into solid crystals, the rubbing motion of particle against particle then taking place is, without question, a very severe one, enough so to exact an improved condition of them, especially in regard to the silica which thereby seems to become in a measure "unlocked." It is converted, partly so, from its original inert state into one of more or less acute chemical affinity, by which the silicatization of the lime is started, and increased in rapidity of its action. My own conviction in regard to the fact that masonry properly executed in frosty weather is comparatively the best, is positive. (4) It is shared by good and attentive masons as well as a number of architects. All that is required in the case is, that the subject be more fully investigated and results taken *ad notam*. A time-honored prejudice will then be fully dispelled.

ACTION OF FROST UPON COMPLETED STRUCTURES.

The necessity of "keeping the weather out" from inhabited buildings is self-evident, and protective measures, especially as to exposed parts, such as fire walls and chimney tops, owing to the introduction of Portland cement and terra cotta lap-coping, have at last become a rule. Facts have gradually had the effect of demonstrating a necessity, from which no part of a building is excepted. A most special care is owing to monumental structures which, as the case is, are designed to endure for ages. Frost is their principal enemy. Water enters into the minutest open joint and ever expands it by freezing. It is to be kept in mind that this expansion taking place is ever and ever repeated with irresistible force. It is exceedingly difficult, if at all possible, to construct monumental work, self-evidently to be durable, with small pieces of material, the joints between them offering so many chances for gradual destruction. (5) The fewer the joints, the larger the constructive units, the more certain the durability of the structure. All joints should be carefully prepared for filling with lead, to be firmly caulked. Such caulking requires that the blocks be massive in order that they may resist all lateral motion thereby induced. This necessity should be considered a factor in the style of all monumental work.

ADDENDA.

(1) When, soon after the great fire of 1871, the rebuilding of the city began, basement walls were in a number of cases built with rubble stone. Frost soon thereafter setting in and remaining almost constant till March in the year following, their green mortar was in solid condition enough to sustain the superstructure in the meantime thereon erected. But so soon as the March weather set in they were speedily converted into a loose mass of rubble, held in precarious position by a loose mass of mortar, which began to ooze out and endanger the stability of the structure. A remedy was found in the speedy call of the "house doctor" and his jackscrews. Yet so ignorant were both architect and builder as to the threatening cause, that the "doctor" was discharged after the rectification of a south wall, to be called again within a week thereafter, in order to also uphold the north wall, which had followed the example of the south wall.

An "accident" took place on another street, where a block of three stores, four stories high, fell all on a sudden into a heap of ruins. Its basement walls, some six feet high from the ground, had been built of stone. "Jack Frost" had solidified them for the time being. The walls were completed and roof put on. When "Jack" took his leave the structure was doomed. Lucky it was that the crash took place early in the morning, prior to starting work.

The lesson then so repeatedly given had, however, not sufficed to afford the necessary amount of instruction. A prominent member of the profession undertook, two years thereafter, to build in winter a stone cellar wall of a store, with no favorable result. Had the tottering wall been an isolated one instead of one leaning against the wall of an adjoining store, it would probably have come to the ground.

(2) It was required to build a large chimney for a grain elevator in winter time. The brick to be used were left unprotected and were soaked by frequent rains. Frost stiffened the work, till after some days of milder weather the chimney began to incline toward the south. A speedy taking down of some sixty feet of its height obviated a crash and thus spared part of the elevator from destruction.

In other countries it has, with the exclusive use of the purer grade of lime there extant, been impracticable to erect tall chimneys, even in summer time, to a straight height. The sun will "shine" them crooked. The climate being damp and the mortar slow-setting, the north face not as well dried and hardened as the south face, will to an extent yield to the pressure exacted by the weight of superincumbent masonry. Some of them have been corrected by means of sawkerfing the bowed side.

(3) In the winter 1871-72 it was required to rebuild a four-story office building, of 264 feet frontage, veneered with cut stone, and have it completed prior to May 1 next. All brick used in the work were kept under a close-roofed shed, and those employed for backing the cut-stone lining were laid — and the order to do this was persistently upheld — with close joints, and each brick received a tap with the butt of the trowel. The result was that the frozen backing did not shrink, nor assume any sort of liquid state, and the wall remained intact.

With careless work it will happen even in summer that the backing will stand less firmly than the facing, be it stone or pressed brick, and the result is a *hollow front*, because a shrinkage of the backing tells from story to story. There are in our city many such hollow fronts, indicating recklessness on the part of the builder and carelessness on the part of the architect.

(4) I have observed in taking down walls only three years old but built in winter time, that the work was so solid that it was barely possible to obtain from the debris any whole brick. I mention this to somewhat strengthen the opinion which otherwise seems to rest on mere strong theory.

(5) A cemetery vault was, some eight years ago, constructed at Graceland Cemetery, with arches composed of small blocks of granite. The structure was altogether neat and attractive, affording evidence of a good deal of happy thought on the part of the architect. But the grim existence of "Jack Frost" had not entered upon his mind. The result was that improved arches were made in the spring following.

In the earlier days of our commonwealth, attention to the destructive agency of frost seems to have been rarely paid. Many a cemetery vault then built on the side of a hill, the arch covered with soil and sod, has gone out of existence owing to the destructive agency of frost. Some of them have been rebuilt in place of being abandoned. All of them, I trust, could be made permanent by not only covering the arch with a coating of Portland cement concrete, but also protecting this coating with sheet lead of fair thickness, the sheets soldered.

The superficial inspection of the New York-Brooklyn suspension bridge reveals a want of care as to results of the action of frost, and even Government work is, here and there, allowed to be thus injured. I have noticed heavy granite copings on quite new retaining walls somewhat moved off their beds. The retaining walls to the approaches of our river tunnels have been

rebuilt twice and are again leaning, owing to an ever-repeated freezing of the ground which leans against their back. On our principal residence streets are shown a large number of fence copings to be in a "demoralized" condition, brought on by the action of frost. The time for proper care and attention in regard to the relentless action of frost seems, after all, to be as yet in suspense.

CHANGES IN SCHOOL ARCHITECTURE.

THE general trend of public opinion regarding the design and construction of school buildings is nowhere changing more rapidly than at Cleveland. A commission recently appointed to inspect the school buildings of other cities recently returned, and Architect F. S. Barnum made the following informal remarks upon the trip and its results, Mr. Barnum's standing as an architect making his observations exceedingly interesting and worthy of record.

Mr. Barnum said, in a newspaper interview, that while it would not be decided just what the innovations will be (in Cleveland school buildings) until the members of the inspecting party had compared notes, it was safe to say that the benefits of the trip would be apparent to all when new buildings shall be erected. Both Mr. Barnum and Director Sargent made copious notes, and from these and personal remembrances the new ideas which will be incorporated in future school structures will be evolved.

The eastern tour was the result of a desire, not only on the part of Architect Barnum, but also of Director Sargent and the school officers, to know what were the latest improvements in school edifices.

"Of course I cannot say just what the changes in Cleveland school architecture will be," said Mr. Barnum, "until I have consulted with my colleagues on the trip. I can, however, say something about the new ideas which seemed to impress us most, and some of which we will likely adopt, although we hope from the composite ideas to evolve plans for school buildings which will, we hope, excel even some of the magnificent structures we visited.

"We did not pay much attention to exterior designs, giving practically our whole attention to inside arrangements. We first visited Pittsburg, where we saw two splendid buildings, one completed two years ago, and the other now being finished. Then we went to Philadelphia. In this city we inspected an enormous building which is at present at a standstill for want of funds. Then we went to New York and from thence east. The finest building, architecturally, which we saw, was the high school at Springfield, Massachusetts. However, it was not as good a building as many others, because it was not thoroughly fireproof, and was not constructed of as good material.

"We found the school structures radically different from those in Cleveland. Here the idea followed has been the grouping around a large central hall, lighted from the top by means of a well, of the various rooms needed, although this style has been departed from to some extent of late. Eastern school buildings are generally structures with a long frontage and slight depth, usually having a court or semi-court in the center. A favorite design seems to be a narrow building with a long frontage, with wings extending backward from each end, thus forming a sort of court in the rear. Plenty of light is thus insured.

"Another radical difference was in the width of the corridors in the Eastern buildings. In Cleveland many of our buildings have corridors forty feet in width; others of more recent design have them twenty-six feet wide, but in all of the Eastern schools the corridors are much narrower. In New York they are sometimes but five feet wide, and in the majority of cities do not exceed ten feet in width. In Cleveland we provide wide stairways at both ends of the buildings. They do the same, but in addition have many narrower stairways at convenient places throughout the structure. In the best buildings these stairways are made as nearly fireproof as possible, being constructed of iron and slate. The corridors, too, are fireproof and are floored with mosaic tiling, and tiling or glazed brick is used on the walls in place of plaster, the idea being to utilize the stairways and corridors as avenues of escape in case of fire. The reason for the many stairways is that space is economized by making the corridors narrower, while the many exits render crowding of the halls impossible.

"None of the Eastern buildings of recent construction are provided with fire escapes, although some of them are four stories in height and all of them three, many having basements. The fireproof stairways and corridors are considered safer means of exit in case of fire than would be the skeletonlike escapes attached to the outside of the building. In fact, all Eastern school officials were unanimous in preferring many fireproof inside exits, even though narrow, to the usual style of fire escape.

"Another novel feature we saw in New York, and which we shall probably incorporate in our building, is asphalt flooring in the corridors. The asphalt is laid on top of a fireproof floor constructed of iron beams and concrete. Its advantage consists in that while it is thoroughly fireproof it is also almost noiseless. In many of the corridors we found these floors were extended into the wardrobes, and that the walls were of tile or of impervious brick, the idea being to provide a corridor not only fireproof, but susceptible of being easily cleaned and of being kept so.

"Other features which attracted our attention were the lunchrooms which are provided in almost all of the schools. They are large and commodious, and at many schools are furnished with cooking apparatus necessary to supplying the children with hot soup and coffee or other inexpensive foods. We also noticed that large gymnasiums were much in favor. Some buildings have separate rooms for the boys and girls, with apparatus suited to each sex. Manual training departments are also located in nearly all the buildings.

"In view of the opposition to high buildings, let me say that none of the new school buildings we visited were less than three stories in height. A few of them are provided with elevators, but, as a general thing, the architects have provided very easy stairways instead of elevators.

"While I cannot speak authoritatively I think it safe to say that some of the innovations we shall likely adopt in Cleveland will be that of constructing longer buildings of less depth, perhaps with wings at each end, and providing narrower corridors, extending from end to end of the structure, with subcorridors to the side of building at frequent intervals, thus insuring perfect lighting. More stairways will be provided, in place of having one at each end of the building, and there will be narrower stairways in the middle of the building. We shall also adopt the plan of making the corridors and stairways thoroughly fireproof. By this means we shall insure perfectly safe exits and plenty of them, for even if a fire should start in one of the rooms, it would be impossible for it to make any headway through halls and stairways where there is absolutely nothing to burn. I think these will prove better means of exit in case of fire than any fire escape yet devised.

"We shall very likely adopt the asphalt flooring for the corridors and wardrobes. Other floors will be constructed as they are now, of iron beams and concrete, on which is laid a thin hardwood flooring. We shall also probably adopt the plan of using tiling on the walls of the corridors, or we may follow the plan in vogue in some cities of using a glazed brick for the wall. Neither are more expensive than plaster, provided a substantial, plain material is used.

"The lunchroom and gymnasium features were favorably regarded and they may be substituted. Bicycle rooms we shall certainly provide, and we found that all of the Eastern schools have them. I do not know about the manual training and cooking schools in the high school buildings of Cleveland, yet nearly all of the Eastern schools have especial rooms for their accommodation."

Mr. Barnum said that the favorite material for school buildings in the East seemed to be hard, light-colored brick — what is known as impervious brick — in place of stone. It was not more expensive and was much more cleanly in appearance. Inside, the buildings are subdivided by solid brick walls, and the aim in all of them appeared to be to reach as near a fireproof construction as possible, this idea being carried out to utilizing tile flooring in the laboratories or wherever there was the slightest danger of fire originating. This, with the perfectly fireproof exits, he said, seemed to insure the absolute safety of the children while in the school buildings, so far as danger from fire was concerned.

The cost of the buildings in which the new ideas were embodied, Mr. Barnum said, need not be greater than the old style structure. Greater economy of space in the long, narrow building would more than offset the slightly added cost for the side walls, while the other improvements did not necessarily involve the expenditure of more money than present methods of construction.

JEFFERSON AS AN ARCHITECT.

PERHAPS no epitaph is better known to the readers of American history than the one Thomas Jefferson wrote for himself — now on his tombstone at Monticello — containing these words, "Author of the Declaration of Independence, of the Statute of Virginia for Religious Freedom, and Father of the University of Virginia."

Many times have they been repeated as a good summing up of his three greatest achievements, says Elizabeth Porter Gould, in the Boston *Evening Transcript*, but I doubt whether the full meaning of the last achievement can be realized until the vision of the classic buildings at Charlottesville dawns upon one, and the origin, aim and workings of the university are fully known.

As the rotunda comes in sight for the first time, one immediately feels an atmosphere of classic beauty which no other building in the country so quickly suggests. The traveled mind is at once transported to its model, the Pantheon at Rome; though it is only one-third of its size, a walk down the cloistered-like façades of the pavilions (the professors' homes) also suggests Italy as nothing else in the land does; and I do not forget the beautiful cloister-like aspect of the Leland Stanford University in California. Perhaps there is nothing more original or unique of its kind than the ingenious serpentine brick walls on the grounds. There is certainly a classic flavor about the pavilions, copied as they are from the Roman buildings of Palladio in his work on architecture. This was practically illustrated by a casual reference to a professor having his home in the "Theater of Marcellus," etc. The Doric, Ionic and Corinthian porticoes in this little classic village are an education in themselves. For the carving of some of the capitals of the columns, skilled workmen were imported from Italy, although the chief work was done by Americans.

Upon seeing the buildings, I did not wonder that George Ticknor, on visiting them with Jefferson in 1824 — the year before the

university was opened to students — wrote to Prescott, the historian, that "they had a mass of buildings more beautiful than anything architectural in New England, and more appropriate to a university than could be found in the world." And he had then been in Europe. The buildings deeply impressed Lafayette, who also visited them about this time.

All this goes to prove that Jefferson succeeded in his determination, as architect of his pet university, to impress the new America with architectural effects of classic beauty. It is said that had he consulted his daughter Martha even more than he did the interior arrangement of the pavilions might have been blessed with more conveniences, such as closets, etc. But he was more inclined to attend to outward effects. The sturdy old locks and keys, which do service in rooms today, attest to his idea of thoroughness.

It is a cause for deep joy that these ten original pavilions, linked by student rooms, all set in a grass court, as well as the ingenious brick walls, were not devastated by the fire which visited the region in October, 1895. These, as well as the rotunda, found ardent admirers in the architects, McKim, Mead & White, when they were called to replace some of the buildings burned. That they built them in harmony with the classic style of the old testifies to their wisdom and taste.

It is safe to say that no university in the world is more imbued with the personal life of one man than this one in Charlottesville, Virginia, with the life of Thomas Jefferson. He not only wrote the deed for the land, but he stuck the first peg in its laying out, and with a twelve-inch rule (three inches when folded), assisted by an employe who tells it, he laid out the foundations for the building. Besides making all the drawings for them, he superintended every detail for their construction and engaged the workmen. He trained carpenters, masons, bricklayers, and even designed implements for them. He designed the classic-looking bell which, when no longer available for use, was, fortunately, preserved for the museum; a most interesting relic.

The old statesman worked as if building his own private house. Nothing poor was allowed to be used. Though nearing eighty years of age, he was on the ground every day when weather permitted, superintending affairs. Seated on a seat of his own invention, a walking-stick of three sticks spread out and covered over with a piece of cloth, he found it his delight to watch the men as they worked. With this he was not satisfied. From his elevated home at Monticello, three miles away, he would watch the work with his glass. It is said that if anything was wrong he would immediately go down to make it right.

A proud day for him, as well as a gala one for the crowds that assembled, was the laying of the corner stone, when President Monroe preceded some remarks by "holding the instruments and pronouncing it square." Jefferson then began to see the fruition of his many years' work in its behalf. Friends had helped him, notably Joseph Cabell in legislative acts, and others by money subscriptions. Monroe, Madison, Cabell, Cooke, and several others, had given with him $1,000 apiece.

A still prouder day was when the university was opened in 1825 with forty students. Jefferson, as rector, though past fourscore, became the inspiring leader. Several times a week he invited to Monticello the professors, all of whom were from over the sea except two, those of law and politics and of ethics. These Jefferson insisted upon should be Americans. Once a week a party of students were his guests. He thus kept in touch with the university and opened a way for the carrying out of his original ideas concerning it. Daniel Webster felt the value of these ideas in his visit to Jefferson at Monticello, when he wrote that the university, which was "coming into existence almost entirely from his exertions," was a chief topic of conversation.

Posterity has not done justice to the subtle influence of this "academic village" upon the country's educational progress. No one conversant with George Ticknor's relations with Jefferson and with Harvard College can fail to see the benefit to Harvard from Jefferson's ideas concerning his own university. (The monograph of Professor Herbert B. Adams ably points this out.)

Not only Ticknor, a professor at Harvard for fifteen years, was influenced in the lifetime of Jefferson, but Josiah Quincy, the year after he became president of the college, when Madison was rector, began to look into Jefferson's work. He even started to go to the university, but a report of fever prevented his reaching it. Years later the president of Brown University, Francis Wayland, visited the University of Virginia and gained helpful suggestions. Our own commissioner of education, Dr. W. T. Harris, has put on record that "Jefferson's university is more and more copied or appreciated in the regulations and practical details of colleges and universities North and South."

Jefferson died feeling that his work was not appreciated, but he was confident that justice would finally come. Benefactors have arisen, such as Miller, Corcoran, McCormack, W. H. Vanderbilt and others more recent, and there is room for more. The McCormack Observatory stands on the mountain a mile away which Jefferson selected as a spot for it. The Virginia legislature has been good to it, at one time clearing the annual appropriation from the large debt surrounding it. Though the State suffered greatly by the war, it nobly continued its annual gift. It doubtless could not forget that aside from its being Jefferson's "darling child of his old age," hundreds of its students gave their lives in behalf of the State. General Sheridan doubtless remembered its origin and history when, during his few war days there (the only time the war came near it), he ordered guards to be placed around the grounds in order to preserve the property.

Besides the graduates and students who have honored it, including such men as Kane, the explorer; Edgar Allan Poe, Thomas Nelson Page, three Presidents of the United States have been intimately connected with it as the first three rectors. "Monroe House" still commemorates the memory of Monroe, and Madison's gift by will is remembered.

The civil war necessarily left its pecuniary effects on this time-honored university. But it has taken upon itself new life with its new buildings. It is still determined to have only the best professors and to use every good means in its power to fulfill all that Jefferson desired for it. As such it has a national interest, and should receive the loyal homage of every lover of Jefferson.

OLD-TIME ARCHITECTURE AT ANNAPOLIS.

ANNAPOLIS has been most fortunate in possessing and preserving a number of the old Colonial houses of the seventeenth century, and they are a most interesting study to architects, who claim they are among the most complete and purest examples to be found. The old Chase mansions, says the *Examiner*, situated on Maryland avenue, one square from the Naval Academy, is considered one of the most interesting historic and antique houses in the city. It was built by Samuel Chase, who was one of the Maryland signers of the Declaration of Independence. It is stately in appearance, being the only one of that "style three stories high." The principal feature of this mansion is its imposing hall of entrance, "opening on a lofty porch and extending through the house" to a beautiful terraced garden filled with ivy-covered trees and shrubbery, where one can while away the hours in dreaming of gay and festive scenes of the olden days. The length of this stately hall is forty-five feet, and it is over fourteen feet wide. The large double front door, with its heavy brass knocker, is arched with a glass transom and a window on each side. Opposite this entrance is the broad stairway, "with a single flight of steps rising to nearly half the height of the lower floor, where it ends with a platform from which steps diverge on either side to a gallery supported by Ionic pillars." The rooms open on this gallery, and here and there are to be seen pieces of statuary in the walls. There is a magnificent window grandly proportioned just above this platform, from which is a beautiful view of the garden below. The massive doors have their heavy brass locks and handles, through which no man can break; the inside shutters have artistic carving, while the most elaborate decorating is to be seen in the broad, spacious dining room. Here, under the mantel, is sculptured a scene from Shakespeare, and over all is a pervading air of delightful roominess, glorious sunshine, supreme comfort and all that delights the eye. Another feature of this grand old hall was its spacious square fireplace, where great crackling logs were piled, lighting up everything with fantastic shadows and lending warmth and geniality. This beautiful, aristocratic home was a treasure house of portraits, handsome antique furniture, rare china and silver, around which clustered many historic associations.

"There were four pieces of candelabra which were used when Lafayette was a guest at the house in 1824;" there was a set of china consisting of 260 pieces having on it the Townley or Chase Arms; this "was made for Samuel Chase before the War of the Revolution and remained packed in Liverpool harbor throughout that war, and could not be delivered until peace had been declared." It is said by experts to be one of the finest specimens of Lowestoffe, being remarkable for its beauty of coloring and brilliancy. There was also a small set of Wedgewood, which is thought to have been the first imported to this country, and many other rare and beautiful pieces which brought almost a fabulous sum when they passed, only a short time ago, into the hands of utter strangers.

After the owner died the house passed into several hands, but finally came back to the descendants of Samuel Chase; the last one was Mrs. Hester Ann Chase Ridout. She died about eight years ago, leaving this property for a home to be called the "Chase Home for Ladies," placing it under the direction of the bishop of the diocese of the P. E. Church of Maryland. Unfortunately, in the will was found no provisions for its support. Several papers were discovered where she had made various bequests, but they did not prove legal, and until a year ago nothing whatever was done. Then the bishop undertook to raise a fund sufficient to open it by a powerful appeal to the people of his diocese. Much public interest has since been taken in it, and by the sale of much of the china and many curios it now is in quite a flourishing condition.

Among some of the old things retained are quaint mirrors, tables, chairs, and a sword and punch bowl that belonged to Governor Sharpe.

Opposite is the old Lockerman House, built in 1770. This distinctively shows the French style in plan and decoration. The beautiful carving over the door is one of its most striking features. The wings on either side are connected with the main part, but of late years have been converted into separate houses. Only the brick walls of the famous "Peggy Stewart" house now remain to tell the tale of the tea-burning on October 14, 1774. An entire new interior has recently been built. The old City Hotel belongs to an earlier period. It was there General Washington occupied a room the night before he resigned his commission, and a ball was given in his honor and that of Lafayette. Among the houses termed mansions was the Carroll house, with beautiful terraced

gardens to the water edge. It now forms part of the Redemptorist Seminary, and its massiveness tells it belonged to an early period. There still remain a few of the hipped roof Colonial style, though many have been destroyed by fire, while others are so remodeled that the antique is lost.

SELECTIONS FROM FRENCH PUBLICATIONS.*

THE TRANS-SIBERIAN RAILROAD.

THE first train service from St. Petersburg to Tomsk, says *La Construction Moderne*, was inaugurated the first of April. It is said to be the only express train in the world which runs continuously for six days and nights. Travelers can walk from one end of the train to the other. The lighting is by electricity, while the heating and ventilation are equally well arranged for. There is a restaurant, a library, pianos — in fact everything that a traveler can wish for, even to gymnastic apparatus.

A GREAT MOSLEM HOTEL.

In anticipation of the great annual festival at Mecca, which always brings more than a hundred thousand Mohammedans to that city, the Sultan is now having built a great caravansary. It is located not far from the celebrated Mosque of the Kaaba, and will have a capacity for 6,000 guests at one time. This hotel, probably the largest in the world, will soon be completed, and will have cost the Sultan some 60,000 Turkish pounds, or about $300,000.

In Europe the largest house ever built is in the suburbs of Vienna. This building has 1,500 bedrooms, and thirty-two separate flights of stairs; there are thirteen interior courtyards, and 850 windows on the street. The number of persons residing there is 3,112. Among other great buildings are those built by Lord Howton at London, which provide for 600, 700 and 800 guests respectively.

THE MACMONNIES QUADRIGA.

The quadriga designed by MacMonnies for "the decorative diadem of a monument in New York," recently exhibited at the Salon, has received the highest praise from Frenchmen, and the critic of *La Construction Moderne* mentions it in the following terms: "It is a noticeable example and especially to be commended when compared with the usual incomprehensible and ragged outlines chosen by our modern sculptors when designing a crown for a monument of simple outline. Everyone remembers the quadriga tried by one of our greatest masters upon our own Arc de Triomphe; it was a perfect 'mess' of figures and accessories, which, near to, seemed the work of a truly great artist, but when seen from afar was most deplorable. Mr. MacMonnies has retained from this modern master only the floating garment, and even that is somewhat questionable."

BANQUET OF THE ARCHITECTS OF THE EXPOSITION.

The first dinner of the architects of the Exposition of 1900 was recently held at Paris, and all the parties commissioned to aid in the elaboration of the great work were present. M. Bouvard presided, and in a telling address recalled the great part that the architects had played in the success of preceding expositions, and urged the greatest efforts that 1900 might be a brilliant point in the history of the French school of architecture.

INTERNATIONAL CONGRESS OF ARCHITECTS.

It is interesting to note that now, while the government is engaged in the organization of International Congresses, at the Exposition of 1900, the fourth International Congress of Architects, held some time since at Brussels, in Belgium, appointed committees of architects from all countries, with the object of facilitating the organization of an International Congress of Architects. It is especially hoped that this assembly will be made of a real international character, by having numerous architects present from *all* foreign countries. To this end special committees of architects in each country were appointed. [W. L. B. Jenney, of Chicago, and George Totten, of Washington, for the United States.] The committees to be appointed by the French government for this same end will now soon be announced, so that they will have two years to arrange a programme that shall be worthy of the great Exposition of 1900.

AN ARCHITECTURAL MUSEUM AT BRUSSELS.

The founding of an architectural museum at Paris has been more than once talked of, and even resolutions to that effect have been unanimously passed by conventions of architects, but, like many similar resolutions, have been practically a dead letter.

Yet at Amsterdam, since 1885, the "Society for the Propagation of Architecture in the Low Countries" has had in its building large rooms for permanent exhibition of building materials. At London, since 1861, a Royal Museum of Architecture has been in existence under the patronage of Queen Victoria, with the object, as at the Architectural and Sculptural Museum of the Trocadero, of bringing together and studying the most beautiful types of architecture and sculpture of the Middle Ages. Also for several years numerous reports from foreign countries, relative to art and art industries, indicate that these foreign schools of industrial art are in strong favor.

We have, it is true, in France, especially at Paris, particularly at the Institute at the Louvre, at the Ecole des Beaux Arts, at the Trocadero, Carnavalet, etc., very numerous and valuable elements which either by uniting or by exchanges of casts, would permit the founding of an architectural museum without a rival in the world; but there is no movement in sight to bring about the realization of such a project.

In Belgium, on the contrary, there is a strong current tending to bring some such project into actual existence, since the city council of Brussels, in accord with the Belgian government, has proposed to found a museum of architecture, and with this end in view has asked the Central Society of Belgian Architects to give advice as to the organization and aims of such an institution.

For this purpose this society, which is desirous of seeing the future museum contain drawings and reproductions of architectural works as well as samples of materials and systems of construction and decoration, has called upon its foreign and corresponding members for information as to similar institutions in other countries, and the best results there attained. It is earnestly to be hoped that a decisive step will soon be taken in this matter at Brussels, and that later the same subject may then be considered at Paris.—*La Construction Moderne.*

MEETING OF ARTISTS AT PARIS.

The Association of Artists, Painters, Sculptors, Architects, Engravers and Designers recently held its fifty-second annual meeting at Paris. During the past year nearly $27,000 has been paid by this society to unfortunate members, in aid and pensions, making a total of over $500,000 distributed since the foundation of the society in 1844.

On July 12, 1892, more than 200 lives were lost at Biounay and other villages by the breaking away of a body of water from the melting glaciers, and as a result steps were taken to prevent the recurrence of a similar catastrophe. A tunnel is to be built to carry off this surplus water, and will be at the highest altitude of any similar construction in Europe, i. e., two miles above the level of the sea. This work is to be completed in 1899, and the greater part of it will be through the ice of the glaciers.

The Chamber of Deputies before adjournment passed the necessary bills for the building of a new legislative hall, as an addition to the present building. The room now serving in that capacity will be altered and changed into a lecture hall. The expense is estimated at about $600,000, and the appropriation this year is about $30,000 for preliminary work. These plans have been approved by the Chamber now going out, and the incoming one, to be sure, has the right to modify them, but once the actual work begun [and it is now to commence in a few days] it is scarcely probable that any changes will be made. Three or four years will be required for the completion of the new hall, and it is quite probable that the estimates already made will fall considerably short of the actual sum required, so that additional appropriations will be necessary.—*La Semaine des Constructeurs.*

A MEMORIAL CHAPEL.

Wednesday, May 4, a sad ceremony brought together upon the site of the terrible disaster to the Charity Bazaar the most distinguished members of the clergy and aristocracy of Paris. It was the occasion of the laying of the first stone of the monument which is about to be erected to the memory of the victims of that awful tragedy, which is still fresh in the minds of all. It was natural that the anniversary of this disaster, which sent so many families into mourning, should be chosen for this ceremony.

April 20 the subscribers of the association founded for this object met at the archbishop's palace and accepted the designs of M. Guilbert, government architect and inspector of historical monuments. Only a relatively small piece of ground has been placed at the disposal of the architect, who has, however, been able to use it most skillfully. The dimensions which it was impossible to exceed are 65 feet frontage by 132 feet depth. The chapel is to be approached by broad flights of steps, while the general plan of the building proper is square, and contains, besides the hall for worship, the necessary rooms and service for the Sisters of Charity, who are to have charge of the building. The main floor is to be about ten feet above the street level, while the crypt below will have its floor three feet below grade. The general character of the interior decoration will not be exclusively funereal. The artist has very properly preferred to glorify the dead by the nobility and the beauty of the interior.—*La Semaine des Constructeurs.*

THE ART LUXURIES OF THE ANCIENT ROMANS.

Great luxury in furniture and furnishings goes back to the most remote times, and those who had great fortunes, like Sylla, Caligula, Nero, Lucullus, etc., spent enormous sums for this purpose.

Sylla was not the first one whose triumphal procession was enriched with the books and manuscripts taken from the enemy. Before him, Paulus Emilius had employed the collection of Perseus, king of Macedonia, in his own triumph, which took place 167 B. C. But neither of these men gave the public the benefit of their conquests, and it was reserved for Lucullus, aided by his immense fortune, to place the literary treasures at the disposal of his fellow-citizens.

Rome, once mistress of the world, and having nothing to do but to enjoy the fruits of conquest, was not long in being led into hitherto unknown luxury, which was both attractive and dangerous. The transition was not made in one single leap. It was

* Translated for THE INLAND ARCHITECT by W. A. Otis, architect.

difficult to pass from the simplicity and austerity of manners of the noble Cincinnatus, Curius and Fabius to the unheard-of riches of Crassus, Scausus and Lucullus.

But one would have a most incomplete idea of the luxury of the last days of the republic and of the early emperors if only the masses of treasure brought by the triumphs and accumulated at Rome were considered. These riches were at first national and were all turned into the public treasury, raising the pride of the people, but really not destroying the simplicity of their customs, or influencing the austerity of their characters. Then the great generals began to appropriate a certain portion for themselves, and in spending this gold in abundance these riches became the means of drawing all into an immoderate desire for wealth, and for the enjoyment of the most insane luxury. These were the ones, then, who desired and did possess all the sumptuous objects of which the effeminate Asiatics made use, and who imitated them in the extent and magnificence of their houses. If architects of this period received five per cent, they must many of them have made such rapid fortunes as to have been able soon to retire in great luxury. The dress of the period was of great richness and elegance, and we know that the fashionable tailors of the period made great fortunes, and themselves owned magnificent villas.

The luxury was equally great in the service of the table and in the care of the culinary department. Lucullus, who was an epicure, permitted himself to consider his cook an intimate friend.

Cicero owned eighteen country houses, but nowadays anyone possessing even one makes enemies of all who do not own any!

As for pictures, there were enthusiastic amateurs in these times. For instance, Agrippa bought from the inhabitants of Cyzicus an "Ajax and Venus" for $45,000, which, considering the relative value of money at that time, when the ordinary laborer's wages was but a few cents per day, represents a vast amount of money. Hortensius, the orator, bought "The Argonauts," by Cydias, to place in his country house at Tusculum, paying nearly $6,000 for it. This was an estate afterward bought by Cicero, who preferred it above all the other seventeen country places that he owned.

A Venus rising from the sea was sold for $95,000, and mentioned by Pliny as a rare masterpiece, although it was then somewhat damaged, but as no one could be found able to repair it, this only added to its value.

Lucullus paid $2,000 for a mere *copy* of a Flower Girl, the original painted by Pausius. Tiberius chose in preference a picture by Parrhasius, of Atlanta, rather than $40,000 in cash — of either of which he had the choice — according to the terms of the will of which he was one of the heirs.

As a comparison of prices turn to modern times. When Napoleon was the conqueror of Italy he appropriated the famous "St. Jerome," by Correggio, a painting on wood which measured 7 feet 4 inches by 4 feet 4 inches. The Prince of Parma, who owned it, offered General Bonaparte $200,000 if he might retain it, but the terms were refused and the picture carried to Paris. This same Duke of Parma had another picture of Correggio's, "The Repose During the Flight Into Egypt," a little smaller than the "St. Jerome." For this he was offered $26,000 by General Braun, and $48,000 by the King of Poland, both of which were refused.—*La Semaine des Constructeurs.*

GENERAL FOREIGN NOTES.

M. BOUCHER, Minister of Commerce, has just officially approved of all the plans of buildings proposed by the architectural bureau, so that finally all the work may now be shortly begun.

AMONG the list of the thirty-nine pupils admitted to the architectural department of the Ecole des Beaux Arts, at the last examination, is the name of Mr. Louis Spiering, of Chicago, Atelier Lambert.

THE following, from *La Semaine des Constructeurs*, indicates that the Exposition of 1900 is to have its "Ferris Wheel." "The construction of the great wheel has just been submitted to a commission of experts charged with examining the conditions of its installation. This committee approved of the work already executed and verified the calculations of the English engineers."

THE French school at Delphi has lately unearthed two slabs of limestone which bear an inscription that is of great interest, dating as it does from the fourth century before Christ. This inscription, which consists of about two hundred lines, gives the price of work for building operations in Greece at the period named, one notable statement being that an architect was paid less than $150 per annum.

THE finances of the great artistic manufactory of Sevres will not permit of the fulfillment of the project of having a special building at the Exposition of 1900, where all the material used in the construction and decoration would have been made at Sevres. Only one bay or arcade of this building will be erected, but this will, however, serve to give an idea of the great progress accomplished in "ceramic" architecture during the last few years.

Among other objects there has just been begun a monumental fountain, which is to be about thirty-five feet high and twenty-eight feet in circumference. This is to have a new kind of glazing, said to be as curious as artistic, wherein the play of the water gives most striking effects.—*La Construction Moderne.*

THE CONVENTION OF THE AMERICAN INSTITUTE OF ARCHITECTS.

IN advance of the secretary's circular of information it will be well for members to know, first, that this will probably be the best attended and most important in results of any since the reorganization. The prospect is good for a one and one-third railroad rate throughout the Eastern and Western States, though this can only be secured by the secretary by those who will attend sending such information to the secretary at an early date. The city of Washington is always attractive, and low hotel rates can always be secured, while to the Western member the trip over the "Big 4" and its connection, the Chesapeake & Ohio Railway, is a large part of the anticipated pleasure to be derived from attendance upon the convention. It is probable that the route from Cincinnati to Washington is the most picturesque of any of similar length in the world, and at this season of the year the mountains passed through — the Tennessee, Allegheny and Blue Ridge—with the full length of the Shenandoah Valley, are clothed with the myriad colors of autumn. In equipment, this road from Chicago to Washington cannot be surpassed. Thus, in choosing the "Big 4" and the Chesapeake & Ohio from the West, the best possible selection has been made, aside from the prospective reduction in prices. The "housewarming" of the new headquarters of the Institute should be made one of the most notable events in its history.

CABIN JOHN BRIDGE.

Span 220 feet. Center 100 feet above the stream.

ASSOCIATION NOTES.

THE BUILDERS' CLUB, CHICAGO.

Wednesday evening, September 28, the Builders' Club entertained the members of the Architectural Club in their rooms in the Chamber of Commerce building. The Builders' Club claim to have a limited membership from choice, their idea being to limit their membership to men who are awake more than half the time. The club is quite characteristic in that members are constantly fighting each other for contracts, and have been so doing for years, and yet in this club these apparently antagonistic interests have been gathered together, and these men meet in pleasant rooms for their quiet lunch and socially enjoy a quiet hour of relaxation from care and warfare. The interests represented are great, and entitle these men to a quiet hour of rest. The man who can marshal and control the varied and complex interests that center in the construction of a modern skyscraper is a general, and exercises ability to the utmost, and unless he relaxes the strain on his mind and nerves he will break and shatter them just as surely as the bow that is never unstrung will become bent, inelastic, broken and useless.

In addition to their noonday lunches, the members of this club have had, at frequent intervals, banquets and receptions, notably one of similar character to this, tendered by them to the members of the Chapter and Architects' Business Association last spring. In all this these men have been broad. They are broad enough to think that a reputable architect does not have his hand behind him for a bribe, nor that a contractor is always looking for a chance to buy away honor and integrity. They are honest enough themselves to believe that there are others that are honest, and being satisfied from experience that they do not yet know it

all themselves, they want to rub up against other men and get new ideas and grow broader and bigger. They have practical ideas, also, which they are willing to dispense to anyone who wants them, though they are not so forceful as to go out and knock men down in order to pound their ideas into them. Their idea is really that by socially meeting others engaged in their general line they will all be benefited; that one man gets an idea here, and another there, but that it is quite a contract for one man to get all the ideas alone. They believe, and their experience seems to bear them out, that the interests centering around the business of modern construction are quite complex. That the architect, as well as the contractor, must have a broad grasp of these, and that the architects and contractors by working honestly for the best building, working reasonably and pleasantly together, can accomplish better work than if they were constantly fighting and always distrustful. They believe, in short, that the day is coming, if not at hand, when the owner will be willing to pay a reasonable price, not alone to his architect but to his contractor as well, knowing that he will get value received for his money. Working with this creed, this club invites other bodies of men to meet them socially, enjoying to the full the social feature, and believing at the same time that it makes them individually and as a club broader and better.

On the evening in question, some fifty odd members and about the same number of their guests broke bread together. President Purington presided in his accustomed happy manner, welcoming the guests. Mr. Mundie responded admirably for the Architects' Club. The others who responded to toasts were Messrs. Hoeppner, Chafee, Arnold and McCarthy, Jr., who had braved the Spanish bullets unscathed only to suffer the loss of their uniform buttons as mementos to their lady friends. They were enthusiastically received, each being accorded three cheers and a hearty "tiger" in addition. Their stories of their experiences were modestly told, but were full of interest to their attentive listeners. Short appropriate speeches were made by Messrs. Kirk, Kimball, Gates, Matz, McCarthy, Sr., and C. W. Gindele, the latter giving some facts in the history of the clubs that was exceedingly interesting. The remainder of the evening was passed in social intercourse, interspersed with selections by Fitzgerald's orchestra, amid clouds of incense from fragrant havanas.

THE ART INSTITUTE OF CHICAGO.

The nineteenth annual report of the trustees of the Art Institute for the year ending June 7, 1898, makes a very creditable showing for that valued institution and its management. This Institute was incorporated May 24, 1879, for the "founding and maintenance of schools of art and design, the formation and exhibition of objects of art, and the cultivation and extension of the arts of design by any appropriate means."

The art school connected with the Institute includes departments of drawing, painting, sculpture, decorative designing and architecture. The report just issued shows that a total of 1,803 students have availed themselves of the opportunities here offered for study and instruction during the past year. This is an increase of eight per cent over last year. The school of architecture, formed in conjunction with Armour Institute of Technology in 1893, shows a marked and steady improvement. At the exhibition of the Architectural Club last March students of this department exhibited products of their work on equal terms with older and more celebrated schools, showing conclusively that the work done is in line with that of the best American schools. This year, for the first time, students who have finished the four years' course will be graduated. All things grand and noble are of slow growth, and the development of a school of architecture is of necessity a matter of considerable time, yet there is not lacking evidence of waning interest or neglected opportunities. The library subscribes to thirty of the leading art journals of the world, and of these nine treat entirely or partially of architecture, but there is a very urgent need of a greater reference library of architecture. The following gifts, made in each case by the artist, were tendered and accepted during the year: Plan of a Chamber of Commerce, by Theodore W. Pietsch, Chicago; plan for a café and restaurant on an island, by the same artist; plan of bench and chair for the Wig Club, by Wilson Eyre, Jr., Philadelphia; pencil sketch, Mary Arden's Cottage, Wilmacote, England, by D. A. Gregg, Boston.

PITTSBURG CHAPTER A. I. A.

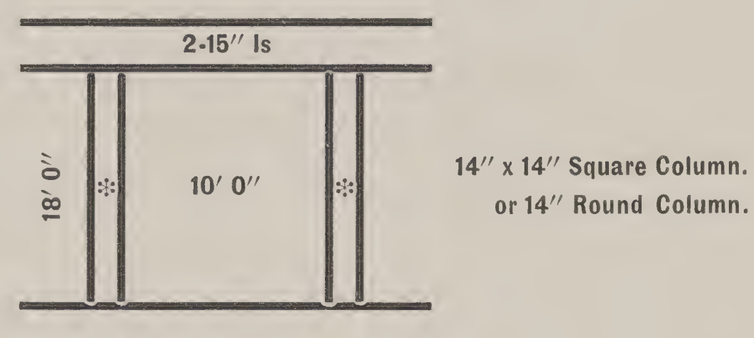
A business meeting of the Pittsburg Chapter of the American Institute of Architects was held September 19, at the Hotel Henry and an election of officers followed. George S. Orth was unanimously reëlected president and was tendered many expressions of appreciation of his work in the interests of the society during the past year. The other officers elected were Thomas Boyd, vice-president; T. D. Evans, secretary, and J. Edward Kierns, treasurer. The directors for the ensuing year elected last night were John M. Alston, William J. East and F. S. Heckert. The meeting concluded with a banquet. An interesting course of lectures has been arranged for and the enthusiasm engendered will be carried in the classwork to be begun for the first time this year at the Carnegie Library. A room has been secured there where classes in drawing, pen and ink, charcoal and crayon will be conducted.

CHICAGO ARCHITECTURAL CLUB.

Mr. Wagner, of the North-Western Terra Cotta Company, has offered three prizes — first of $50, second of $30, third of $20 — for the best three designs for a terra cotta column and lintel with wall surface above, to be competed for by members of the Chicago Architectural Club.

PROGRAMME.

Terra cotta is to cover the steel columns and girders as shown below.



The maximum length of a single piece is to be 2 feet 0 inches and the depth from surface to steel frame shall be not less than 4 inches.

No designs copied from established precedents for stone architecture will be considered.

All designs must be made with a proper and intelligent regard for the peculiar nature of the material, its possibilities and its limitations.

TERRA COTTA.

Terra cotta as a building material is valuable for its plasticity, the variety of colors and surfaces obtainable by the leading manufacturers, and its great durability and its compressive strength.

Those properties and limitations which modify its use and which must be constantly kept in view by the designer are its shrinkage and warping during burning and the consequent difficulty of obtaining pieces of large size and true form.

As the exposed surface can under no circumstances be cut, the surface treatment should be of such nature that the joints can be cut or ground without marring the effect of the finished work as a whole.

Owing to the fact that the finished pieces vary slightly in size and precision of form, it is almost impossible to build up a large column enriched with hollow fluting, and at the same time maintain the clean alignment and elegant sweep of hollow and arris obtainable in stone, and a vital requirement for proper effect.

Mr. Wagner will be pleased to give competitors any further information they may require as to the nature and practical limitations of terra cotta as a building material.

DRAWINGS.

The drawings required are an elevation (scale 1 inch=1 foot) and such details and sections as may be necessary to properly show the design. Full size drawings permissible.

Drawings to be rendered at will and mounted on stretchers 28 by 40 inches without frame or glass.

A sealed envelope containing the full name and address of the competitor shall be securely fastened to each drawing, and drawings must be marked by no other name or device.

All drawings are to be delivered, charges paid, to N. Max Dunning, Secretary Chicago Architectural Club, Art Institute, Chicago, on or before noon Monday, November 14, 1898.

All drawings except the first prize and mentioned drawings will be returned to contributors at their own expense.

The club reserves the right to exhibit any or all drawings at its spring exhibition.

Note.— Mr. Wagner has kindly loaned for the use of the members a series of photographs of the Guarantee building, Buffalo, which will be hung on the walls of the clubrooms during the progress of this competition.

CORRESPONDENCE.

THE LADIES' HOME JOURNAL COMPETITION.

Kansas City, Mo., July 13, 1898.

Inland Architect and News Record, Chicago, Ill.:

Gentlemen,— Please find inclosed copy of circular letter which I received from the manager of the *Ladies' Home Journal.* Also a copy of my reply to same. Can you not take this matter up and try to reform not only the *Ladies' Home Journal* but others, and lead them to see the error of their way?

Respectfully, Jas. Oliver Hogg.

Mr. J. O. Hogg, Kansas City, Mo.: June 27, 1898.

Dear Sir,— My attention has been called to some very interesting country houses which were designed by you. The extraordinary interest expressed by our readers in such architectural features as we have heretofore published encourages us to make the inclosed offer to you in the hope that you will be enabled to send us some photographs and rough plans, with or without dimensions, which would be of importance and value to the *Ladies' Home Journal.*

Your attention is called particularly to the suburban houses, and the interior decoration feature, as specified in the offer for girls' rooms, and also, perhaps, for verandas.

It would be advisable in submitting some material, if this offer interests you, to designate on the back of the photographs the actual cost price of erecting the particular house.

I might add that the *Journal* is prepared to buy further material than that specified as being suitable for this competition.

Very truly yours, William Martin Johnson,
Manager of Art Bureau.

Kansas City, Mo., July 13, 1898.

Mr. William Martin Johnson, Manager of Art Bureau, Philadelphia, Pa.:

Dear Sir,—I received several days ago a circular letter under date of June 27, asking for photographs or plans of suburban homes built from my designs. While I greatly appreciate a pretty home, I greatly deprecate your method of obtaining them, for the following reasons:

The architects who are the most successful practitioners will not, in my opinion, participate in a competition of this kind,

and, as a result, your competitors will come mostly from draftsmen and young architects who have had little or no experience. The results attained from my personal observation have not been satisfactory either to the cause of architecture nor to the best interest of the parties who used your design, as they have been badly planned and invariably cost a great deal more than your statement as to cost.

I had one client who brought me a set of your plans, which was claimed by your journal could be built for from $1,800 to $2,000. The best figure he could get on it was $3,000. The result was disappointment on his part.

Another objection which I have to your method is the fact that you put a low estimate upon the services of the architect. The fact that you can produce a set of blue prints from a tracing at an expense of a few cents, and from the fact that you advertise a set of plans for $5, leads those who contemplate building to think that an architect is robbing them if he makes a reasonable charge for his services.

I think your discussion of beautiful homes and the furnishing of cuts in your paper of photographs of beautiful homes is an educator and would do much toward elevating and educating the public, and help to create a desire for a beautiful home; but when you furnish plans by machinery it looks to me as though you were out of your element.

"Let each of us stick to our last."

Very truly yours, JAS. OLIVER HOGG.

NEW PUBLICATIONS.

PAINTING ON METAL, WITH SPECIFICATIONS. By A. H. Sabin, M. S. New York: Edward Smith & Co., 45 Broadway. Price, $1.25.

Professor Sabin's new work under the above caption seems well fitted for a place in every mechanical engineer's library. It has been gotten up at much expense, most of the text having been submitted in manuscript to the criticism of eminent engineers in all parts of the country. The value of paint as an ornamentation for metal is admitted, but its value as a preventive of corrosion is not so generally conceded; hence the views advanced by Professor Sabin are worthy of careful attention, and the detail specifications given furnish valuable data for those who would secure the best results where large and expensive sand-blasting or pickling plants for metal work are not available.

THE PRESS-CLIPPING BUREAU.—Robert and Linn Luce, of Boston, have recently issued a neat booklet to mark the successful closing of ten years in their special line. In the spring of 1888, Robert Luce, then an exchange editor of the Boston *Globe*, suggested to his brother, Linn Luce, that newspapers might be read with a view to profit from customers wanting matter in which they were especially interested. The idea thus suggested took form, desk room was hired, and the Press Bureau started. At the beginning a single reading shelf, one chair and one table, met all the requirements of the young industry. Less than a hundred papers, all from New England, were handled. The cutting of "personal mentions," notices of books, speeches, etc., appeared to be the scope of the work in its inception, and this was not an entirely new idea, as a similar bureau in Paris was engaged in this same line. Later the endless possibilities for the use of clippings in connection with journalism and commerce became recognized, and a corresponding development of the Bureau. Before the summer of 1888 was ended the Bureau had an office of its own at 105 Milk street. With characteristic energy the Luces carried their work to other cities. New York, from its recognized importance as a commercial center, was chosen as a suitable locality for an office, and in 1893 one was established there. In 1896 other offices were established in Cincinnati and in Denver. It is with no wish to disparage the work of other institutions of this kind when we say that the Luces are easily at the head, and probably handle more papers than any other bureau in the world. Their Boston office is at 68 Devonshire street.

PERSONAL.

LOUIS C. NEWHALL, of Boston, the successful Rotch scholarship competitor of this year, sailed for Europe on September 5.

D. EVERETT WADE, of the firm of Wade & Cranford, architects, of Chicago, is in a hospital suffering from a broken leg. His condition is improving rapidly.

MOSAICS.

ARCHITECTS who devote any considerable amount of time to camera work, find a certain amount of difficulty in obtaining the best and most serviceable supplies. The agent for building materials and appliances calls assiduously, and keeps him posted upon all the latest devices, but the photographic material man never calls. To supply this, the photographic material house of Martin G. Good, of Chicago, has established a special department for prompt selection and delivery by mail or otherwise, for architects and draftsmen. His stock is as comprehensive as can be found, and his knowledge of the requirements of the amateur gives him a prestige in the selection and supplying of everything, from a lens or a camera to the most minute chemical.

THE first session of the jury appointed to decide the competition for the plans of the buildings of the University of California, to be erected by Mrs. Phœbe Hearst, the widow of Senator Hearst, of California, was held October 1, at the Royal Museum, Antwerp, Belgium. The city authorities received Mrs. Hearst and the jury at the City Hall and proceeded to the museum, where two wings were filled with the plans of the 108 competitors. M. Pascal, of the School of Fine Arts of Paris, was chosen president of the jury, and Herr Paul Wallot, the architect of the German Reichstag building, at Berlin, was elected vice-president. Announcement is made, according to press reports, that Prof. D. Despradelle, of the Massachusetts Institute of Technology, and Stephen Codman, architect, of Boston, are two of the eleven successful competitors, these thirteen being selected by the jury to enter the finals. The vote of the jurors was unanimous upon each plan.

OUR ILLUSTRATIONS.

Oak Park School. Patton, Fisher & Miller, architects, Chicago.

Two designs for schools. Reeves & Baillie, architects, Peoria, Illinois.

City Hospital for Minneapolis, Minnesota. Harry W. Jones, architect.

Public Shelter Building, Belle Isle, Detroit, Michigan. Edward A. Schilling, architect.

Design for Congregational House, Boston, Massachusetts. Shepley, Rutan & Coolidge, architects.

Interior View, Onondaga County Savings Bank, Syracuse, New York. R. W. Gibson, architect, New York City.

Sketch of Mr. Newcomb's Residence, New London, Connecticut. E. G. W. Dietrich, architect, New York City.

Residence of A. D. Juilliard, Tuxedo Park, New York. Howard & Cauldwell, architects, New York City.

Rockaway Hunt Club, Cedarhurst, Long Island. Lord, Hewlett & Hull, architects, New York City. An exterior and an interior view are shown.

State Capitol, Providence, Rhode Island. McKim, Mead & White, architects, New York City. General view and view of end under construction are shown.

Photogravure Plate: Detail of Entrance, Empire Building, New York City. Kimball & Thompson, architects.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure Edition.

Detail of Singer Building, New York. Ernest Flagg, architect.

Detail of Anderson Building, New York. R. S. Townsend, architect.

Side View, Barnard College, New York City. Lamb & Rich, architects.

Detail of Washington Life Building, New York. C. L. W. Eidlitz, architect.

Interior View, Columbia University Library, New York. McKim, Mead & White, architects.

Residence of Paul Blatchford, Oak Park, Illinois. Pond & Pond, architects, Chicago. Two views are shown.

BUILDING OUTLOOK.

Office of THE INLAND ARCHITECT,
CHICAGO, October 10, 1898.

The bookkeepers of the Government, the banks and the railroads all render very encouraging reports as to balances, traffic and the volume of money. So far as the influence of money goes, business is being benefited. To all outward appearances everything is in good shape. There are no squalls threatened. Our industries are finding a constantly increasing volume of business to take care of. There are some symptoms of stronger prices, but the trend seems to be against unwarranted or unnecessary fluctuations. The iron and steel makers were never as busy; railroad managers are large buyers of equipments and supplies; the agricultural interests have never stopped buying since the first returns for good crops came into their possession. The present outlook is full of encouragement, but the benefits to be derived must be earned and guarded by conservative management. Productive capacity is still being expanded, and production is being sustained in many industries at practically maximum limits. This is the general situation. In point of building there has been necessity for caution. The summaries of outlays in the different cities compare favorably with last year. Where there has been an increase it has not been as great as was expected. In many cities and towns there has, so far, been less building done in the total; but in many cities there has been more money spent for shop and factory building, and in all cities and towns the outlays for equipment have been much greater than last year. As to 1899, there are many good reasons for saying that the general volume of trade will be much heavier. In estimating such possibilities, it must be kept in mind that the people at large have for a year or two been paying off old debts. This business is pretty well through with. The rank and file are pretty well engaged. Wages are fair, the money now available for current needs is much more plentiful than a year ago, and the new enterprises coming up show that the country has finally gotten around the corner in the long and dreary lane. The country is surfeited with great expectations. The press boils over about export trade, increasing gold balances, etc. All these are good signs. The real measure of prosperity is the dinner bucket. When it is well filled the great industries are prosperous. Manufacturers are predicting a heavy spring trade, and with good reason. It is no exaggeration to state that in many lines productive capacity will be strained for a time at least. New business opportunities will multiply, and there is money for all. The wages of labor will probably remain uniform, and this is a great help. Strikes will not reach serious proportions. The disposition to do justice to labor is apparent, and labor feels that it is being fairly dealt with. Circumstances level wages up indirectly by gradually reducing the cost of living. All kinds of material are low in price, and cost of production is being gradually reduced while the standard of living is advancing. These are all healthful influences.

SYNOPSIS OF BUILDING NEWS.

Architects are invited to furnish for publication in this department monthly or occasional reports of their new work before the letting of contracts. Reports of buildings costing less than $5,000 are not published.

Chicago, Ill.—Architects Wilson & Marshall: For E. H. Salsbury, a four-story and basement apartment house, 100 by 133 feet in size; to be erected at the northeast corner of Fifty-first street and Washington avenue; to be of pressed brick and stone, have hardwood finish, mantels, consoles, sideboards and hall trees, the best of nickel plated plumbing, gas and electric fixtures, marble, tile and cement work, electric light, etc. For H. F. Vories, a three-story and cellar residence, 33 by 51 feet in size; to be erected at Washington avenue near Fifty-third street; to be of pressed brick and stone, slate roof, hardwood finish, mantels, consoles, electric and gas fixtures, hot-water heating, electric light, etc. For Moses Bensinger, a handsome three-story residence, 30 by 80 feet in size; to be erected at Drexel boulevard between Forty-sixth and Forty-seventh streets; Bedford stone front and porch, slate roof, hardwood finish, specially designed mantels, consoles, sideboards and hall trees, the best of nickel-plated plumbing, steam heating, electric light, marble wainscoting, tile bathrooms, cement floors and sidewalks, electric bells and speaking tubes, gas ranges and fireplaces, etc.

Architects McMichael & Morehouse: For the Calumet Electric Company, a handsome three-story building, 90 by 150 feet in size; to be erected at Sixty-third street and Stony Island avenue; it will be of pressed brick and stone front, have modern plumbing, gas and electric fixtures, cement, marble, tile and mosaic work, ornamental iron staircase, ornamental plaster work, ventilating plant, two large elevators to carry sixty people each—direct lift—also two 3,000-gallon tanks; the building will also contain twelve flats of five rooms each, an entertainment hall to seat seven hundred persons, five toilet rooms, large dining room, offices, etc.; the cost will be $85,000. Same architect made plans for livery stable and laundry, 76 feet wide and 150 feet long, for the Hyde Park Hotel; steel beams and columns, plumbing, electric light, etc. For J. W. Seddeth, a three-story residence, 42 by 65 feet in size; to be erected at Springfield; frame, stone basement and stone chimneys, fine nickel-plated plumbing, hot-water heating, electric light, special mantels, consoles, sideboards and hall trees, marble, tile and mosaic work; cost $10,000.

Architect E. H. Turnock: For Carl G. H. Anderson, two three-story and basement flat buildings, each 45 by 64 feet in size; to be erected at 1621 to 1627 Briar place; Bedford stone fronts, hardwood finish, mantles, consoles, sideboards, hall trees, grill work, gas ranges and fireplaces, the best of open plumbing, gas and electric fixtures, steam heating, electric light, etc.

Architect A. G. Lund: For A. A. Hallgren, a three-story flat building, 45 by 62 feet in size; to be erected at 1003 East Fifty-sixth street; Bedford stone front, oak and Georgia pine finish, mantels, sideboards, consoles, gas and electric fixtures, steam heating, gas ranges and fireplaces, marble and tile work, etc. For Charles P. Anderson, a three-story flat building; to be erected at 6407 Rhodes avenue; Bedford stone front, oak finish, mantels, sideboards, consoles, hall trees, gas and electric fixtures, gas ranges and fireplaces, cement work and sidewalks, electric light, electric bells and speaking tubes, etc.

Architect Harvey G. Hays: For Walter M. Walker, a two-story, basement and attic residence, 36 by 45 feet in size; to be built at Edgewater; to be of frame, with stone basement, have hardwood finish, mantels, sideboards, consoles, hall trees, best of nickel-plated plumbing, hot-water heating, gas and electric fixtures, cement floor and basement and cement sidewalks, gas ranges and fireplaces, etc. For Captain Whitehead, a pretty Colonial residence, to be erected at Austin; it will be two-story, basement and attic, 42 by 30 feet in size; of frame with brick basement, have oak finish, mantels, consoles, gas fixtures, hot-water heating, cement work, electric bells, speaking tubes, etc.

Architects D. E. & O. H. Postle: Making plans for remodeling building at 149 to 151 Michigan avenue, to be used as athletic club for women; pressed brick and stone, modern plumbing, electric light, steam heating, hardwood interior finish, steel beams and columns, cement work, marble and tile work; the cost will be about $50,000.

Architect F. R. Schock made plans for a two-story and basement engine-house and police station, 51 by 80 feet in size, to be erected at Austin; pressed brick and stone front and sides, steel beams and columns, modern plumbing, steam heating, electric light, cement work, etc. Same architect finished drawings for the Marmion apartment building, to be erected at Lake avenue, between Thirty-eighth and Thirty-ninth streets; it will be four stories and basement, 60 by 120 feet in size, have two fronts of pressed brick with buff Bedford stone trimmings, have hardwood interior finish, mantels, sideboards, consoles, gas and electric fixtures, gas ranges and fireplaces, electric light, marble work, etc.

Architect Charles A. Strandel: For Nicholas Schultz, a two-story store and flat building, to be erected at Ashland avenue and Balmoral streets; pressed brick and stone, modern plumbing, gas fixtures, steam heating, galvanized iron bays and cornice, cement sidewalks, etc.

Architect Fred E. Gatterdam: For John W. Rau, a two-story flat, to be built at Jackson boulevard, east of Forty-third avenue; Bedford stone front, oak and pine finish, furnaces, mantels, gas fixtures, etc.

Architect H. K. Holsman: For R. J. Mulvey, a two-story, basement and attic residence, 25 by 55 feet in size; to be built at Indiana avenue near Fifty-fifth street; pressed brick and stone front, slate roof, oak finish, mantels, sideboards, furnace, gas and electric fixtures, gas ranges and fireplaces, electric light, etc. For A. B. Mulvey, a two-story, basement and attic residence, 42 by 45 feet in size; to be built at Cornell avenue, between Fifty-first and Fifty-second streets; pressed brick and stone front, slate roof, hardwood finish, mantels, consoles, hall trees, sideboards, gas and electric fixtures, furnace, gas ranges and fireplaces, etc.

Architect Paul Hansen: For Jens C. Jensen, a three-story apartment house, 43 by 60 feet in size, to be erected at 6020 Ingleside avenue; pressed brick and stone front, oak and Georgia pine finish, mantels, sideboards, etc.

Architects Morrison & Fuller: For Howard N. Ogden, a four-story apartment house, 50 by 60 feet in size; to be erected at the corner of Drexel avenue and Sixty-fourth street; pressed brick and stone front, steam heating, electric light, etc.

Architect George Grussing: For Nellie H. Lloyd, a two-story and basement residence, 25 by 40 feet in size; to be erected at 1914 West Polk street; to have a buff Bedford stone front, oak finish, modern plumbing, furnace, mantels, sideboards, electric wiring, cement and tile roof, etc. For Frederick Thormann, a two-story and basement flat building, 25 by 44 feet in size; to be built at Fifteenth and Robey streets; pressed brick and stone, oak finish, gas fixtures, hot-water heating, electric bells and speaking tubes, marble and tile bathrooms, etc. For Leroy Peckham, a two-story and basment flat buildng, 25 by 56 feet in size; to be built at Fifty-first avenue and Fulton street; Bedford stone front, oak and pine finish, furnaces, gas fixtures, mantels, etc. For Home Ole Hansen, a frame cottage; to cost $2,000; at 1924 Thomas street; plumbing, gas fixtures, mantels, furnace, etc.

Architect Adolph Druiding: Has commenced on foundations for the Polish Church at the corner of Hoyne and Webster avenues; it will front 92 feet and have a depth of 205 feet; to be constructed of pressed brick with cut stone and ornamental brick trimmings, have slate roof, hardwood finish, steam heating, gas fixtures, plumbing, cement work, etc.

Architect Martin Carr: Made plans for a one-story school, 60 by 90 feet in size; to be erected at Springfield and Lexington avenues, for the Church of the Presentation, Rev. J. J. Jennings, pastor; Bedford stone front, pressed brick sides, hardwood finish, steam heating, plumbing, cement work, gas fixtures; cost $14,000.

Architect W. Alloway: For Mrs. Susan M. Davis, eight two-story and basement flat buildings, each 22 by 49 feet in size; to be built at Springfield and Ayers avenues; Bedford stone fronts, oak and pine finish, furnaces, gas fixtures, mantels, etc.

Architects Fowler & Wright: For James Greenwood, a two-story store and hall building, 40 by 80 feet in size; to be erected at Manteno, Illinois; pressed brick and stone, steam heating, gas fixtures, electric light, cement and marble work, etc.

Architect Harold Flower: Antlers Gun and Golf Club, 62 by 104 feet in size; two stories; frame, plumbing, oak and pine finish, etc.; to be erected at Antlers Lake, Indiana. For John Gleason, a two-story flat building, 25 by 96 feet in size; to be built at Woodlawn; pressed brick and stone front, stone porch, tile roof, oak finish, mantels, sideboards, furnaces, electric light, etc. For Walter M. Walker, two two-story flat buildings, each 22 by 50 feet in size; to be built at 956 to 960 Carmen avenue; mantels, sideboards, gas fixtures, furnaces, modern plumbing, etc.

Architect John R. Koster: For Theodore Rohn, a three-story and basement flat building, to be built at the corner of Thirty-second street and Shields avenue; to have pressed brick and stone front, modern plumbing, furnaces, mantels, sideboards, gas fixtures, etc.

Architect George W. Maher: For Frank Scheidenhelm, a two-story, basement and attic residence, 38 by 45 feet in size; to be built at Wilmette; to be of frame and plaster, have oak finish, hot-water heating, gas fixtures, mantels, consoles, etc.

Architect A. R. Ingalls: For John M. Young, a four-story apartment building, 50 feet front; to be erected at Normal Parkway, Englewood; pressed brick and stone front, hardwood finish, mantels, sideboards, steam heating, gas and electric fixtures, electric light, etc.

Architect George O. Garnsey: For W. H. Miller, a nine story store, office and theater building, 120 by 160 feet in size; to be erected at West Superior, Wisconsin; to be of pressed brick and stone, steel construction and fireproof, have elevators, steam heating, electric light, marble, tile and mosaic work; cost $110,000.

Architect L. E. Stanhope: For Bernard Lavin, a two-story, basement and attic residence, 35 by 42 feet in size; to be erected at Eagle Lake, Wisconsin; frame, stone basement, hardwood finish, hot-water heating, gas fixtures, mantels, sideboards, consoles, tile bathrooms, etc.

Architects Franklin P. Burnham & Co.: For Carlton Prouty, a two-and-one-half-story store, post office and flats, to be built at Winnetka; pressed brick and stone, brick vaults, steam heating, gas fixtures, hardwood finish, cement basement floor, sidewalks, etc.

Architect J. T. Bright: For Mrs. J. R. Lyman, a three-story flat building at 4317 Langley avenue, Bedford stone front, hardwood finish, furnaces, gas fixtures, mantels, sideboards, etc. For Mrs. M. Bartels, a two-story, basement and attic frame residence, 30 by 50 feet in size; to be built at Magnolia street near Wilson avenue; stone basement, modern open plumbing, furnace, gas fixtures, mantels, sideboards, etc.

Architect H. H. Richards: For Charles Jones, a two story frame residence, 28 by 65 feet in size; to be built at Austin; stone basement, furnace, modern plumbing, gas fixtures, oak finish, mantels, sideboards, etc.

Architect M. A. White: For E. Buehler, a two-story and basement residence, 20 by 50 feet in size; to be built at West Polk street near Fortieth avenue; pressed brick and stone front, gas fixtures, fine plumbing, hot-water heating, oak and Georgia pine finish, mantels, sideboards, consoles, etc.

Architect T. G. Hallberg: For Emanuel Osterholm, a three-story flat building at Fifty-ninth street near Curtis; Bedford stone front, hardwood finish, furnaces, modern plumbing, gas fixtures, mantels, sideboards, etc

Architect E. R. Krause: For Mrs. K. M. Davis, a two-story, basement and attic residence, 36 by 48 feet in size; to be built at 1189 and 1191 Winthrop avenue; frame, stone basement, hardwood finish, hot-water heating, gas and electric fixtures, mantels, sideboards, consoles, marble and tile work, etc.

Architect E. M. Newman: For William M. Cook, a three-story flat building at 503 Cuyler avenue; pressed brick and stone front, oak and pine finish, furnaces, gas fixtures, mantels, etc.

Architect De Witt T. Kennard: For Richard Curran, a three-story and basement apartment house, 50 by 83 feet in size; to be erected at Sixtieth street and Ingleside avenue; to have a front of pressed brick with Bedford stone trimmings, gas and electric fixtures, steam heating, fine hardwood finish, mantels, sideboards, consoles, etc. Also at 6154 to 6158 Madison avenue, a twenty-flat building, four-stories 60 by 83 feet in size; two fronts of Bedford stone, fine interior finish, mantels, consoles, sideboards, electric light, steam heating, etc. Also at 6514 and 6516 Minerva avenue, a three-story apartment house, 50 feet front, to have buff Bedford stone front, hardwood finish, steam heating, electric light, mantels, sideboards, etc.

Architect W. A. Bennett: For J. T. Bunting, a four-story apartment house, 50 by 75 feet in size; to be erected at the corner of Diversey and Pine Grove avenues; pressed brick and stone front, granite columns, oak and pine finish, mantels, consoles, sideboards, electric light, steam heating, etc. For F. J. Hetzel, a two-story flat building, 22 by 55 feet in size; to be built at Lexington avenue near Douglas boulevard; Bedford stone front, modern open plumbing, furnaces, mantels, sideboards, etc. For Hetzel Brothers, at same location, a two-story flat, 25 by 60 feet in size; of buff Bedford stone front, oak finish, furnaces, mantels, gas fixtures, etc. For George Beardsley, at Harvard street, a two-story flat building, 25 by 55 feet in size; to be of pressed brick and stone front, have open plumbing, furnaces, oak finish, mantels, sideboards, etc. For F. J. Hetzel, at Austin, two two-story frame houses, stone basements, hot-water heating, gas fixtures, mantels, sideboards, etc.

Architect J. M. Van Osdel: For Mrs. Charlotte Cobley, a two-story, basement and attic frame residence, 23 by 48 feet in size; to be erected at Blue Island, stone basement, cypress finish, mantels, sideboards, hot-water heating, consoles, gas fixtures, cement basement floor and sidewalks, electric bells and speaking tubes.

Detroit, Mich.—Architects A. C. Varney & Co.: For Patrick C. Baker, two-story pressed brick and stone residence; slate roof, hot-water heating and hardwood finish; 40 by 58 feet in size; cost $6,500. For Detroit Gas Company, brick barn and sheltering shed; to be two stories high, supported on iron columns and have composition roof; 66 by 162 feet in size; cost $5,000. For Masons, Belleville, Michigan; block of brick stores, with lodgeroom; 70 by 100 feet in size; cost $5,000. For Boydell Brothers White Lead Company; six-story brick and stone manufacturing building, of slow-burning mill construction; 80 by 138 feet in size; cost $30,000.

Architects Spier & Rohns: For D. Y. & A. A. Electric Railway Company, Ypsilanti, three-story brick and stone car barn; roof of tile and composition; 105 by 110 feet in size; cost $15,000. For Immanuel Evangelical Congregation, brick church edifice, with slate roof and stained glass windows; 63 by 105 feet in size; cost $10,000.

Architect Arca Whipple: For Thomas B. Melton, two-story brick veneered residence; cost $6,000.

Architects Malcomson & Higginbotham: For Fire Commissioners, brick and stone engine house; 40 by 65 feet in size; cost $9,000.

Architect E. C. Van Leyen: For R. L. Courtney, brick and stone block of five residences, two stories high, hardwood finish; cost $15,000. For same, brick and stone residence, two stories high, and hardwood finish throughout; 34 by 64 feet in size; cost $20,000.

Architects Donaldson & Meier: For Persie B. Rose Estate, four-story and basement brick and stone business block; 20 by 60 feet in size; cost $20,000. For Fire Commissioners, two-story brick and stone engine house, with slate roof; 40 by 65 feet in size; cost $9,000.

Architect Richard E. Raseman: For Reese & Reckmeyer, two-story brick factory and machine shop, of mill construction; 92 by 162 feet in size; cost $10,000.

Architect A. E. French: For William J. Newton, three two-story brick veneered residences; cost $7,500.

Architect M. Burroughs: For McLaughlin Brothers, two two-story frame residences, brick foundation, and roofs and gables of stained shingles; 33 by 46 feet in size; cost $7,000.

Architect S. C. Falkinburg: For Elias W. Wardell, three-story stone residence, slate roof and hardwood finish; 40 by 60 feet in size; cost $14,000.

Architects Nettleton & Kahn: For Grace Hospital, brick and stone home for nurses, three stories in height, and finished with hardwood; to have steam heating and electricity; 40 by 120 feet in size; cost $20 000.

Architects Stratton & Baldwin: For United States Weather Bureau, observatory building, with residence, for forecaster; all of brick and stone; cost $10,000.

Architect Edward A. Schilling: For A. E. D. Allan, two and one-half story frame residence, finished throughout with hardwood; 37 by 60 feet in size; cost $5,000.

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXXII. ADVERTISERS' TRADE SUPPLEMENT. No. 3

Valuable Publications Free.

Any architect can secure valuable books of reference without cost by sending for the catalogues of materials, etc., noticed from month to month in these columns. Large sums are spent on these catalogues, and they contain much practical information. Many are art productions. They may be obtained free on application to those issuing them. In writing please mention THE INLAND ARCHITECT, and oblige the journal and the dealer.

REQUESTS FOR CATALOGUES AND SAMPLES.

Those wishing catalogues and samples sent them by dealers in general may have their names inserted under this heading free of charge. The only recompense desired is that the dealers who send catalogues to these addresses give THE INLAND ARCHITECT due credit for business benefits that result.

TURGEON & LAFRENIERE, Architects, Room 10, No. 55 St. Francis Xavier Street, Montreal, Canada.

H. NIEBERDING, Civil Engineer and Architect, 158 East Second South street, Salt Lake City, Utah.

W. ARTHUR THOMAS, 1211 Carnegie building, Pittsburg, Pennsylvania.

FREDERIC WILLIAM STRIEBINGER, Architect, New England building, Room 1215, Cleveland, Ohio.

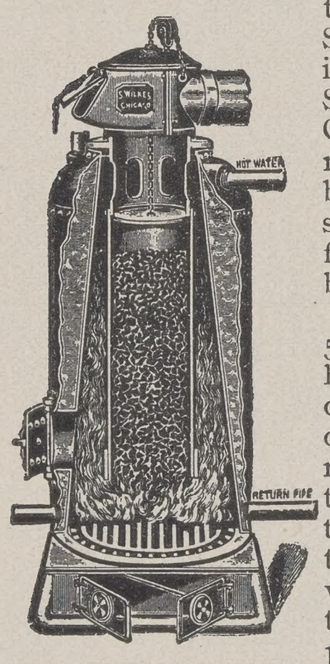
GEORGE LOHMAN, Architect, 222 Houseman building, Grand Rapids, Michigan.

A NEW BELT DRESSING.

There has been a growing demand among belt users for a more convenient form of belt dressing than the paste. The Joseph Dixon Crucible Company, Jersey City, New Jersey, are now placing on the market a solid belt dressing in round bars, about eight inches long and two inches diameter. It makes a package convenient to the hand, and easy to apply even to fast running belts. The company does not claim that the solid dressing is as good a preservative of the life and elasticity of the leather as the Dixon paste, but it is quick to apply and quick to act, and that is what is wanted by the general run of belt users.

THE WILKS HOT-WATER HEATERS AND STEAM GENERATORS.

Any practical mechanical engineer who understands the construction of steam-heating boilers and hot-water heaters cannot fail to be interested and pleased on visiting the new works of the S. Wilks Manufacturing Company, 51-53 South Clinton street, Chicago, which are a model of the kind, being especially designed and equipped for steam-heating boiler work.



The new works are 56 by 156, two stories high, the business offices are on the left of main entrance, the remainder of the entire ground, except that part occupied by the engine and boiler which furnish power to the tools, is occupied by boilers in stock, machine and hand tools. The space devoted to the fitting and construction of boilers and heaters is so liberal that the workmen are in no case cramped. The machine tools consist of drilling, punching, shearing, riveting machines, and plate-binding rolls.

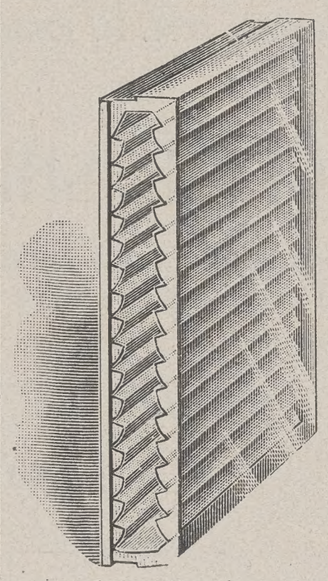
There are boilers and heaters of various sizes being made here from 10 inches to 4 feet in diameter and upward. The boilers and heaters are made of steel plate, which has among other advantages those of lightness and strength. The accompanying illustration shows a vertical sectional view, and from this the exterior as well as the interior construction can be understood.

The cylindrical steel shell is made out of one plate and has only one vertical single riveted joint. These heaters are adapted for hard or soft coal, and can be used in residences, offices, schools, churches, clubs, hospitals, public buildings, for both heating buildings and supplying hot water in any quantities, and are adopted by the United States Government.

They are recommended by architects, steamfitters, plumbers and large realty owners. The company furnishes a free catalogue, and would be pleased to have your address for one if in need of this kind of heaters, remembering to state that you saw this in THE INLAND ARCHITECT. The company's address is the S. Wilks Manufacturing Company, 51-53 South Clinton street, Chicago, Illinois.

ENCLOSED PRISMS.

Light provided by prisms does not pass through a *meter*. The word "meter" differentiates all artificial light from the light offered by prisms, and one's bank account will reflect striking results of such a comparison. After an initial expense, no tally is kept on the quantity of light you use, and this light — daylight — is the best that nature or the inventive process of man can produce. The enclosed prism is a departure from other forms of prisms on the market, inasmuch as its effectiveness is derived from ridged surfaces that are placed in the interior of a glass plate that has two smooth surfaces. This prevents accumulation of dust, as no prismatic ridges are exposed, and, in addition, presents the same advantage as a double window, lessening the cost of steam heating in winter by not allowing as much heat to escape from a room as ordinary single-thickness glass will.



An installation of this new prismatic glass may be seen at 188 Dearborn street, where, in an ornamental frame set away from the window, a number of these little prism plates are assembled by a new process of glazing, so that almost an unbroken surface of polished glass is presented to the observer's eye, and very substantial results are obtained in the interior of the room. The fact that no more time and attention is required to clean them than an ordinary window pane will be an item of interest to architects.

THE GREAT CHURCH LIGHT.

Frink's Reflectors are too well and favorably known to need any special recommendation, but it might be of interest to those in search of lighting apparatus for a church or any other place to note what one prominent pastor thinks of them, as set forth in the following letter:

CINCINNATI, OHIO, March 31, 1898.

Mr. I. P. Frink, 551 Pearl street, New York:

DEAR SIR,—You will remember furnishing the reflector for the new edifice which I led in building at Hoosick Falls, New York. It gave such excellent satisfaction that it afforded me much pleasure to recommend same to many churches, and you have made a number of sales through my recommendations. I want to say that the two large reflectors you furnished for our Temple in this city have given universal satisfaction, and everybody is delighted. Without the use of a single side light, which is always a nuisance, our very large auditorium, or rather two auditoriums (for we use the entire Sunday school rooms and main auditorium on Sunday nights), is brilliantly lighted. No grumbling because the old people cannot see the words of the hymns. There is not a church in this city, with its two hundred and fifty churches, so handsomely lighted as ours. Everybody speaks in your praise. I shall be delighted at any time to recommend your reflectors, and you are always at liberty to refer to me.

G. R. ROBBINS,
Pastor Lincoln Park Institutional Baptist Church.

—*Journal and Messenger, April 28, 1898.*

TRADE NOTES.

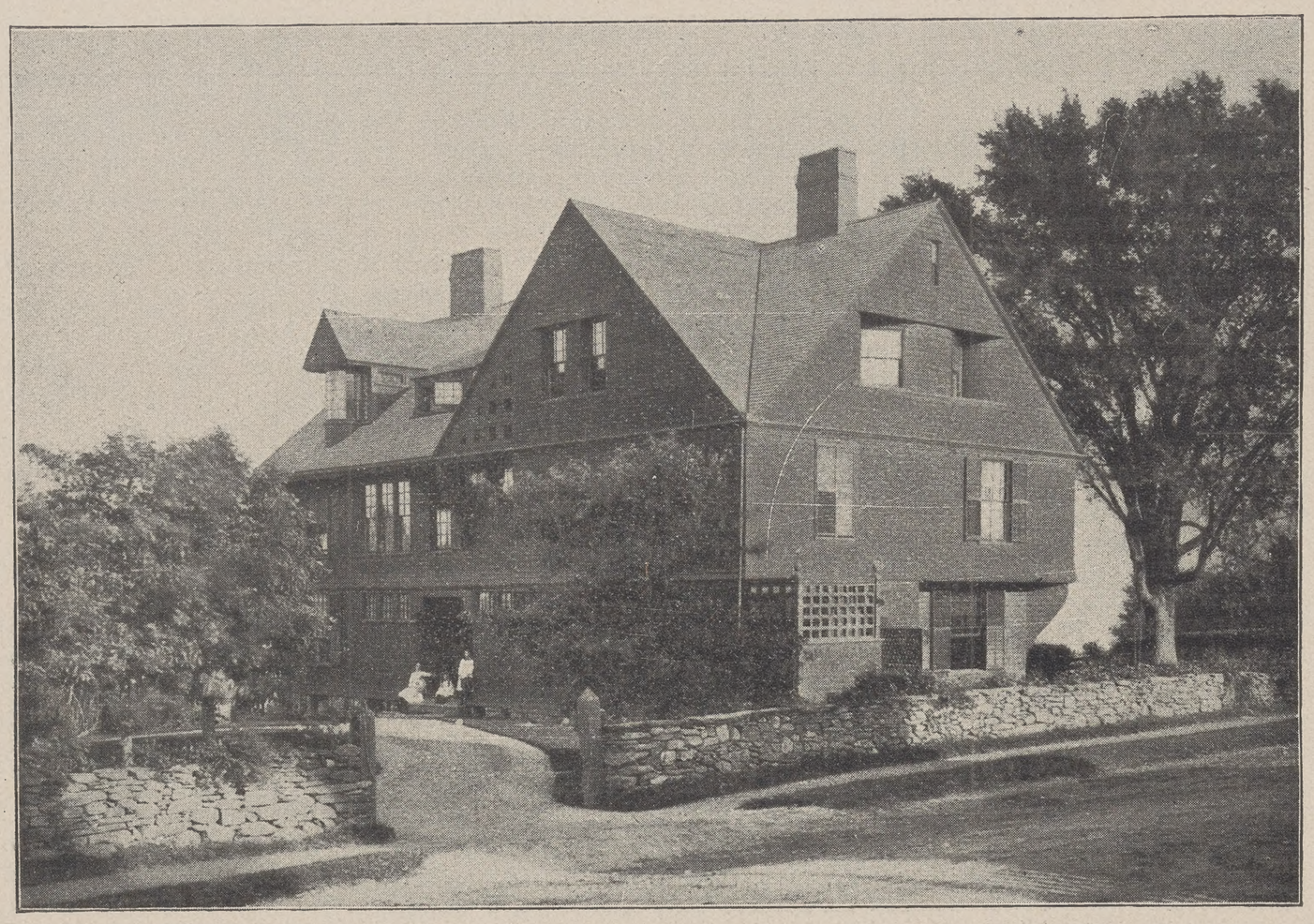
THE new Post Office building at Washington, D. C., is being equipped throughout with the Powers system of automatic temperature regulation.

THE Powers Regulator Company have been awarded contracts for heat regulation in the following buildings: Wicker Park School and Alcott Schools, Chicago; High School, Aurora, Illinois; School No. 3, Davenport, Iowa; Hinman Avenue School, Evanston, Illinois; Studebaker Fine Arts building, Chicago; New York Life building, Chicago.

IT is interesting to note the new and extensive fields which constantly develop for the use of fan-system apparatus. Especial study of the problems incident thereto with tests are promptly begun and continued by experts of long experience until an economical and reliable basis for calculating the proper sizes and applications is reached. An instance of this nature is the drying of gumdrops and other products of the confectionery. These outfits involve regular fan system apparatus, i. e., steel-plate fan and engine and heater. Some time ago the Buffalo Forge Company supplied J. K. Farley Manufacturing Company, of Chicago, Illinois, with such a drying outfit. This plant has been in operation sufficiently long for them to determine its efficiency. This company now speak thereof in the highest terms, and advise that they have recently shipped a carload of gumdrops to London dried by the Buffalo fan system.

UNITED STATES STUDENTS IN FRENCH SCHOOLS.

Gen. Horace Porter, United States ambassador to France, writes from Paris under date of January 11, 1898, in answer to an inquiry in regard to the admission of a student from the United States into the School of Mines. No foreign student, he says, can enter any of the schools of France — medicine, pharmacy, dentistry, veterinary, painting, design, architecture, music, declamation, engineering, etc.— without the formal application of the diplomatic representative of his country. In most cases, two letters suffice: one making application, the other expressing thanks when the request is granted. Sometimes more correspondence is necessary, for the reason that those proposing to enter any of the high-grade schools have to produce certain certificates of studies, or diplomas, which the authorities accept only when they come through the embassy. These rules, says General Porter, apply to all foreign students. No discrimination is made against Americans; on the contrary, the authorities extend all possible facilities to them. There is a large number of American students in Paris, and, as a rule, they are much liked by the teachers in French institutions. As for the School of Mines, he continues, foreigners can be admitted there either as foreign pupils, in which case they have to stand an examination, or as free auditors, in which case there is no examination. All the courses, however, are not open to that class of students, and no diploma is granted them. In both cases, they have to pay 50 francs ($9.65) for matriculation. If the school is full, as occasionally happens, the application for admission is put off until the next year.



HOUSE AT NEWPORT, RHODE ISLAND. WM. R. EMERSON, Architect.

Any painter can mix a thin paint and call it stain.

DEXTER BROTHERS' ENGLISH SHINGLE STAINS

are made from pigments ground as fine as tube colors, and only pigments which are absolutely transparent are used. These are the only stains the tannic acid of the redwood and cedar shingle will not affect.

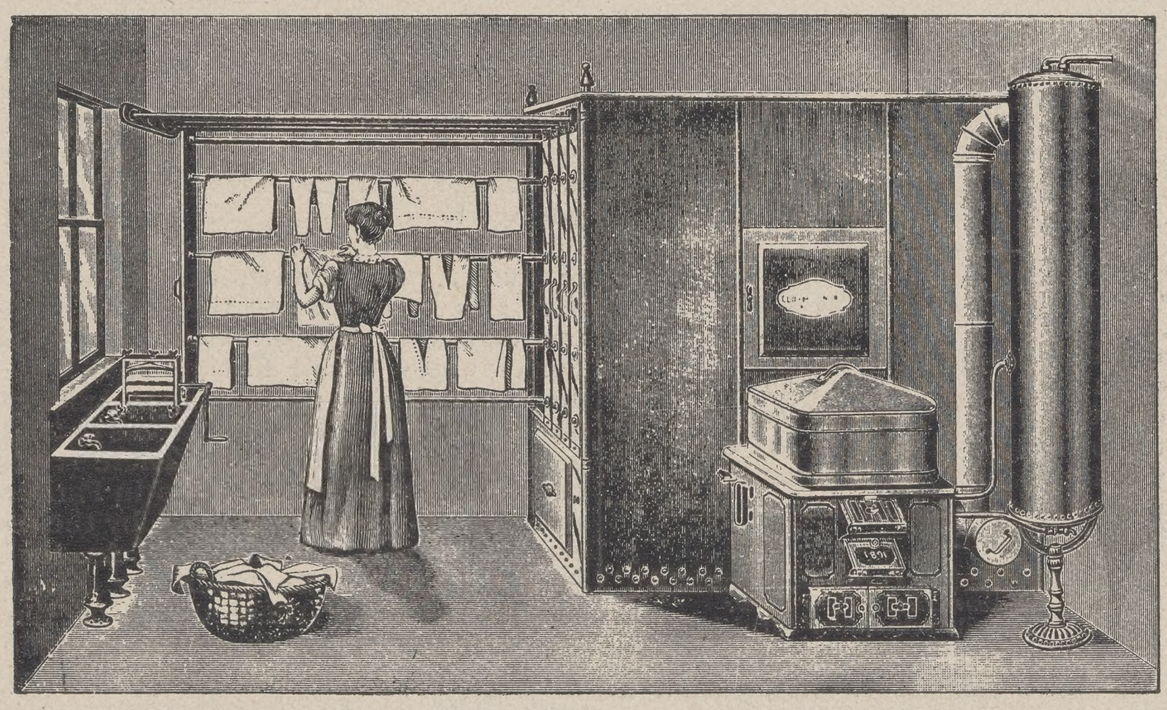
Send for sample boards and further information to

H. M. HOOKER CO., 57 West Randolph St., CHICAGO, ILL.

W. S. HUESTON, 108 Fulton St. (Downing Bldg.), New York City. DEXTER BROTHERS, 55-57 Broad St., Boston, Mass.

LAUNDRY DRYERS.

AS our entire business is devoted to the manufacture of Clothes-Drying Machinery, we are thoroughly fitted and very desirous of furnishing any information required relative to DRYERS heated either by STEAM, GAS or HOT AIR (Stove System), and will thank architects and others for inquiries. FULL CATALOGUE ON APPLICATION.



CHICAGO CLOTHES DRYER WORKS,

65 S. Canal St., CHICAGO. 1123 Broadway, NEW YORK, N. Y.

FLORIDA
And the SUNNY SOUTH.

"BIG FOUR" BEST LINE,

FROM

CHICAGO, ST. LOUIS, PEORIA, INDIANAPOLIS, CLEVELAND, COLUMBUS, SANDUSKY, BENTON HARBOR

and Intermediate Points.

Solid Vestibuled Trains, Elegant Coaches, Buffet Parlor Cars, Wagner Sleeping Cars, Dining Cars

To Cincinnati,

Where DIRECT CONNECTIONS are made with Solid Trains with Through Sleeping Cars of the Chesapeake & Ohio R'y, Queen & Crescent Route, and Louisville & Nashville R'y to

Hot Springs, Old Point Comfort,

and all points in Virginia and the Carolinas.

Jacksonville, St. Augustine,

and all points in Florida.

NEW ORLEANS,

and all principal Southern Cities.

Through Palace Sleeping Cars between

St. Louis and Washington

Via Big Four and C. & O. Routes.

TOURIST RATES IN EFFECT.

E. O. McCormick, Pass'r Traffic Manager, **Warren J. Lynch,** Ass't Gen'l Pass'r & Tkt. Agt.

Big Four Route, Cincinnati, Ohio.

Please mention THE INLAND ARCHITECT when corresponding with Advertisers.

The Hydraulic-Press Brick Companies

MAKE ALL COLORS, SHAPES AND KINDS OF

BRICKS

ENAMELED, GLAZED, COATED AND FRONT BRICKS;

SAND-MOLD BRICKS AND COMMON BRICKS;

RED, BROWN, BUFF, GRAY, GOLD, POMPEIAN, AND MOTTLED BRICKS.

Bricks that are WHITE and remain so.

No material for building secures such chaste and beautiful effects.

"Cheap looking" effects are produced by cheap so-called white bricks, which are porous and absorb discoloration from the atmosphere.

White Enameled Bricks have their proper uses, but are not suitable for exterior walls.

The Hydraulic-Press Brick Co. makes bricks with an impervious coated dead finish white face, which will not absorb moisture, and is thus kept washed continuously clean by the action of the elements.

Send for samples and prices.

Hydraulic-Press Brick Co.,	St. Louis Mo.
Chicago Hydraulic-Press Brick Co.	Chicago, Ill.
Findlay Hydraulic-Press Brick Co.	Findlay, Ohio.
Illinois Hydraulic-Press Brick Co.	St. Louis, Mo.
Menomonie Hydraulic-Press Brick Co.,	Menomonie, Wis.
Omaha Hydraulic-Press Brick Co.,	Omaha, Neb.
Kansas City Hydraulic-Press Brick Co.,	Kansas City, Mo.
Cleveland Hydraulic-Press Brick Co.	Cleveland, Ohio.
New York Hydraulic-Press Brick Co.	Rochester, N. Y.
Washington Hydraulic-Press Brick Co.,	Washington, D. C.
Eastern Hydraulic-Press Brick Co.,	Philadelphia, Pa.

SALES AND EXHIBIT ROOMS:

900, 901, 902 and 903 Metropolitan Building, - - NEW YORK.
27 Equitable Building, - - - - - - - BOSTON.
40 Builders' Exchange Building, - - - - - BALTIMO

50 State St.

ORR & LOCKETT HARDWARE CO.
71 RANDOLPH ST. 50 STATE ST.
CHICAGO.

71 Randolph St.

Manufacturers, Wholesale and Retail Dealers in

BUILDERS' HARDWARE,

ART METAL WORK OF ALL KINDS,

Cooling Rooms, Mechanics' Tools, Pocket and Table Cutlery.

Our stock is large and carefully selected. The assortment includes, besides all the standard lines, the NEWEST and BEST goods of ALL THE LEADING MAKERS.

SOLE OWNERS OF

Skidmore's Patent Adjustable Window Balcony

and Simkins' Patent Window-Cleaners' Safety Belt

(For Cleaning the Outside of Windows of High Buildings),

The very best and the cheapest devices for this purpose.
Send for circulars and estimates.

NOTICE OUR NEW LOCATION. Our stores are 180 feet deep on Randolph Street and 80 feet on State Street. We occupy six floors with every facility for showing and handling goods.

Orr & Lockett Hardware Co.

50 State Street and 71 Randolph Street.

Telephone, Express 551 and 554.

IF YOU SPECIFY

SAMSON SPOT CORD

You can tell at a glance that no other Sash Cord is substituted. It is warranted to be of the best cotton stock, smooth finish and perfect braid.

SAMSON CORDAGE WORKS
BOSTON, MASS.

Dried Linseed Oil
Is permeable to moisture.

Experiments made by Dr. Dudley, chief chemist of the Pennsylvania R. R., have proved this.

Stands to reason, then, that
LINSEED OIL PAINT CANNOT PROTECT IRON FROM RUST.

TRADE MARK.

Durable Metal Coating will

EDWARD SMITH & CO.,

VARNISH MAKERS and COLOR GRINDERS,

45 Broadway, NEW YORK.

The
YALE & TOWNE
Manufacturing Co.

ITS PRODUCTS EMBRACE

LOCKS of every kind and for every use, the most complex and expensive, the simplest and cheapest, and every intermediate grade.

BUILDERS' HARDWARE of every kind and quality; and a vast number of special articles used in buildings of every kind.

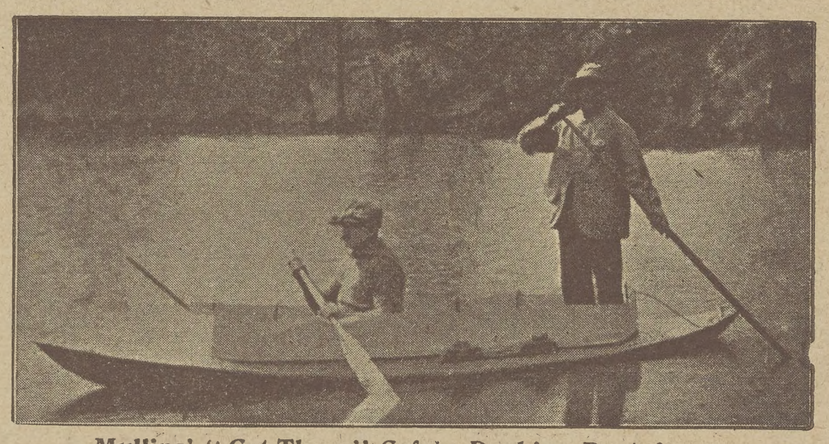
ART METAL WORK in every school of ornament, in every metal and finish, and in greater variety of design than by any other maker in the world.

A Handsome Exhibit Room is provided in each of the Company's local offices. It contains samples of its products, and is intended for the use of Architects and their clients in the selection of locks and metal work. Ladies are especially invited to make use of these facilities.

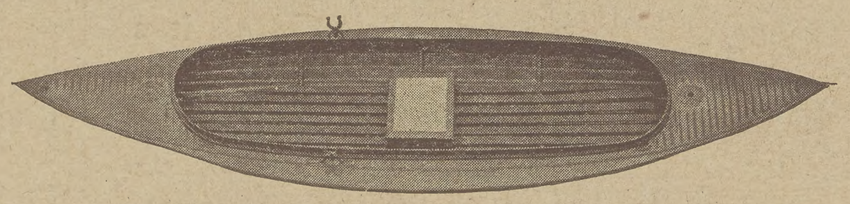
Two artistic Brochures, "Artist and Artisan" and "The Vulcan Locks," mailed on request

LOCAL OFFICE:
152-154 WABASH AVENUE,
CHICAGO.
Philadelphia, Boston, San Francisco.

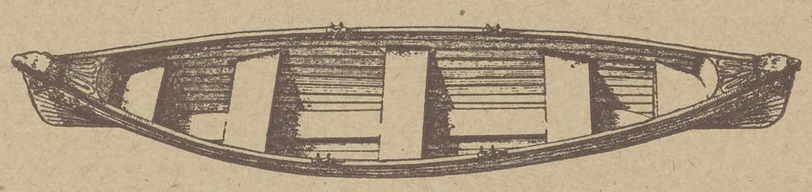
For Your Summer Vacation TAKE ONE OF THE FOLLOWING:



Mullins' "Get There" Safety Ducking Boat, in use with Canvas Gunwale.



Mullins' Side Air Chamber or Bustle Duck Boat.
14 feet long, 46-inch beam.



Mullins' "Double Ender" Pleasure Boat.
15 feet long, 42-inch beam.

HUNTING and PLEASURE BOATS

MADE IN SHEET METAL.
MORE DESIRABLE THAN WOODEN BOATS. WILL LAST A LIFETIME.
DO NOT BECOME WATERLOGGED WHEN IN USE.

Send for Catalogue and Price List.

W. H. MULLINS,
310 Depot St., SALEM, OHIO.